DOCUMENT RESUME

ED 260 292 CE 042 311

AUTHOR	Honse, Elizabeth Linsenbardt
TITLE	Food and Nutrition. Volume II. Units VI-VIII: Fruit, Fats, Vegetables, Legumes, Grains, Meats.
INSTITUTION	Missouri Univ., Columbia. Instructional Materials Lab.
SPONS AGENCY	Missouri State Dept. of Elementary and Secondary Education, Jefferson City. Div. of Career and Adult Education.
PUB DATE	Jul 84
NOTE	698p.; Document contains colored paper.
AVAILABLE FROM	Instructional Materials Laboratory, 10 Industrial Education Bldg., University of Missouri-Columbia, Columbia, MO 65211 (Catalog Number HE-62-I: $25.00).
PUB TYPE	Guides - Classroom Use - Guides (For Teachers) (052)
EDRS PRICE	MF04 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS	Behavioral Objectives; *Cooking Instruction; Course Descriptions; *Electrical Appliances; Energy Conservation; Equipment Evaluation; *Facility Planning; Food; *Foods Instruction; *Home Economics; Learning Activities; Lesson Plans; Nutrition; *Nutrition Instruction; Secondary Education; Space Utilization

ABSTRACT

These instructional materials are intended as a guide for the instructor of a secondary home economics course in food and nutrition. Topics covered in the three units are time, energy, and resource management; selection, care, preparation, and storage of food (seven lessons on dairy foods; fats and oils; cereals and breads; fruits and vegetables; eggs, meats, and legumes; others; and food preservation); and meals for family and special occasions. Each unit or lesson may contain some or all of the following: unit (lesson) and specific objectives; lesson outline with suggested instructor activities, list of needed instructional materials, and list of references; notes to instructor; information sheets in outline form; handouts; transparency masters; assignment sheets; answers to assignment sheets; job sheets; unit (lesson) examination; and answers to examination. Instructors may choose from the assignments and learning activities and adapt them to their local programs. Units may also be supplemented with additional local resources. (YLB)

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Food And Nutrition

Fruit Fats Vegetables

Legumes Grains Meats

Vol. II Units VI-VIII

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FOOD AND NUTRITION

VOLUME II

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Initial materials for this packet were
developed by a select group of
Home Economics teachers and consultants at the
Home Economics Education Curriculum Workshop
held in June, 1980 on the UMC campus.

Produced by the Instructional Materials Laboratory
University of Missouri-Columbia
Columbia, Missouri

Catalog Number HE-62-I

July, 1984

"The activity which is the subject of this report was supported in whole or in part by funds from the Department of Elementary and Secondary Education, Division of Career and Adult Education. However, the opinions expressed herein do not necessarily reflect the position or policies of the Missouri Department of Elementary and Secondary Education or the Division of Career and Adult Education, and no official endorsement should be inferred."

ACKNOWLEDGMENTS

Appreciation is expressed to the many individuals who gave their time, knowledge and talents to the development of these materials. Without their cooperation this guide would not have been made possible.

A special thanks is extended to the following persons for:

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FOREWORD

The Food and Nutrition Guide (Volume I) includes resources within five units. Unit I emphasizes food management and stresses resource management, time management and coordination of departmental resources. A variety of forms are provided to facilitate record keeping, budgeting and departmental organization. The examples provided are designed to increase both instructor and student efficiency. Units II, III, IV, and V of the guide emphasize nutrition and food as resources contributing to family health and well-being.

The Food and Nutrition Guide (Volume II) includes Unit VI: Time, Energy, and Resource Management; Unit VII: Selection, Care, Preparation, and Storage of Food; and Unit VIII: Meals for Family and Special Occasions.

Users of this guide may choose from a wide variety of assignments and learning activities and adapt them to their local programs. Instructors may wish to supplement units with additional local resources.

Before using the material, it is recommended that the instructor carefully review the "Suggested Activities for Instructor" (starred with an asterisk *) section at the beginning of each unit in Volume I and "Notes to the Instructor" section in Volume II. These sections contain additional suggestions for learning activities.

FOOD AND NUTRITION

VOLUME II

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UNIT VI: TIME, ENERGY AND RESOURCE MANAGEMENT

UNIT OBJECTIVE

At the conclusion of this unit, students should be able to describe and plan an efficient kitchen, know how to select kitchen appliances and how to save time and energy in the kitchen. This knowledge will be evidenced through the completion of assignment and job sheets and the test with 85% accuracy.

SPECIFIC OBJECTIVES

After completion of this unit, the student should be able to:

1. Match terms associated with kitchen planning, appliances and work simplification with correct definition.
2. Describe the kitchen work centers.
3. Draw a work triangle.
4. Identify the basic kitchen plans and variations.
5. Demonstrate the ability to plan a kitchen following correct planning guidelines.
6. List materials for decorating the kitchen.
7. Describe characteristics of kitchens planned for the handicapped.
8. List general points to consider before buying an appliance.
9. List general buying practices to follow for appliances.
10. List features to look for in large appliances.
11. List use and care procedures to follow for large appliances.
12. Compare the microwave oven, convection oven, and conventional range.
13. List general points to consider when buying portable appliances.
14. List use and care features and things to look for in the selection of portable appliances.
15. Demonstrate a portable appliance.
16. List three types of used appliances.
17. List things to look for in buying a used appliance.

18. List places to look for used appliances.

19. List three rules for making a work and time schedule.

20. Demonstrate the ability to make a time and work schedule (will be evaluated in later units).

21. List and follow good lab and kitchen management practices for the work area and saving energy. (Part of this will be evaluated later when students do lab work.)

22. List time-saving strategies.

23. List alternatives to the use of time and energy.

UNIT VI: TIME, ENERGY, AND RESOURCE MANAGEMENT

SUGGESTED ACTIVITIES

I. Suggested activities for instructor

   A. Order films, filmstrips, pamphlets, etc. to supplement unit.

   B. Provide students with objective sheet.

   C. Provide students with information and assignment sheets.

   D. Discuss unit and specific objectives.

   E. Discuss information and assignment sheets.

   F. Adapt material for special needs students.

   G. Determine time allotment for unit and decide whether assignments will be done at home or in class, which job sheets to use and whether to use one or all of the review sheets, depending on class and laboratory time.

   H. Handouts may be used as transparencies or vice versa.

INSTRUCTIONAL MATERIALS

I. Included in this unit

   A. Objective sheet

   B. Information sheets

   C. Handouts

      1. HO 1: Equipment at the Three Work Centers
      2. HO 2: Efficient Kitchen Plans

   D. Transparency masters

      1. TM 1: Kitchen Storage Ideas
      2. TM 2: Kitchens for the Handicapped
      3. TM 3: Styles of Ranges
      4. TM 4: Range Features
      5. TM 5: What to Look for in a Refrigerator
      6. TM 6: Dishwasher Selection
      7. TM 7: Keys to Success in Buying Kitchen Appliances
      8. TM 8: What to Look for in Portable Appliances
      9. TM 9: Proper Work Habits
      10. TM 10: Shortcuts in the Kitchen

        11. TM 11: Keys to Success in Saving Time and Energy

    E. Assignment sheets

        1. AS 1: Planning a Kitchen

    F. Answers to assignment sheets

    G. Job Sheets

        1. JS 1: Comparing Conventional, Microwave, and Convection Cooking
        2. JS 2: Appliance Demonstration
        3. JS 3: Work Simplification Experiments

    H. Test

    I. Answers to test

II. Unit references

A. Kowtaluk, H. Food For Today. Peoria, IL: Bennett Publishing Co., 1982.

B. Largen, V. Guide to Good Food. South Holland, IL: Goodheart-Willcox Co., Inc., 1981.

C. Medved, E. The World of Food. Lexington, MA: Ginn and Co. 1981.

D. Microwave Memo booklet. Betty Crocker Food and Nutrition Center Publications and Publicity. General Mills, Inc. Box 1113, Minneapolis, MN 55460, 1979.

E. Newburry, L. The Food Book. South Holland, IL: Goodheart-Willcox Co., Inc., 1982.

F. Ohl, S. et al. Guide to Modern Meals. New York: McGraw-Hill Book Co., 1981

G. The Butterick Kitchen Handbook. Butterick Publishing, New York: 1977.

III. Visuals

A. "Good Kitchen for the Home" Distributed by: Photo Lab, Inc. Washington D.C. 20011

UNIT VI: TIME, ENERGY, AND RESOURCE MANAGEMENT

NOTES TO THE INSTRUCTOR

1. Have a specialist from the University of Missouri Extension Service demonstrate microwave ovens (they may be able to bring other models besides the one in your department).

2. Have a specialist from the University of Missouri Extension [illegible] talk to the class about kitchen planning and equipment. They should also have visuals available.

3. Have someone from a gas or electric company demonstrate use of gas and electric ranges and speak about energy conservation.

4. Visit an appliance store, if possible, and have the salesperson show the latest kitchen appliances.**

5. Review basics of drawing a kitchen plan to scale, possibly showing an example on the chalkboard before having students complete Assignment Sheet 1. Explain that they may choose a career as a kitchen planner.**

6. Allow at least one day of class time to prepare for and practice on student demonstrations on Job Sheet 2. Also, decide how much time can be allowed per demonstration according to your schedule (also depends on appliance).

7. Review basic demonstration techniques when assigning Job Sheet 2. Also explain to students they may get a job demonstrating appliances for stores, as a home economics demonstration person or on television.**

8. Have students find magazine or catalog pictures of major appliances they would like to have. Have students show pictures to class and explain the features of the appliance they have chosen.

9. Have some of the students observe other students during a lab and record any needless steps and movements and other misuses of time and energy. Have them give suggestions for improvement.

10. "Grab Bag" game: Have each student (one at a time) draw a kitchen item out of a paper bag. Identify the item and tell in which kitchen center it belongs.

11. Organizing Kitchen - Have all students go to the group and lab kitchen to which they have been assigned. Have them find out where all items are located and where each kitchen center is located. Have them make sure all items are in correct places. You may want to ask the students for their suggestions for changes in lab arrangement.

12. Use the "Key to Success..." TM idea for a bulletin board using things listed in class by the students on the keys.

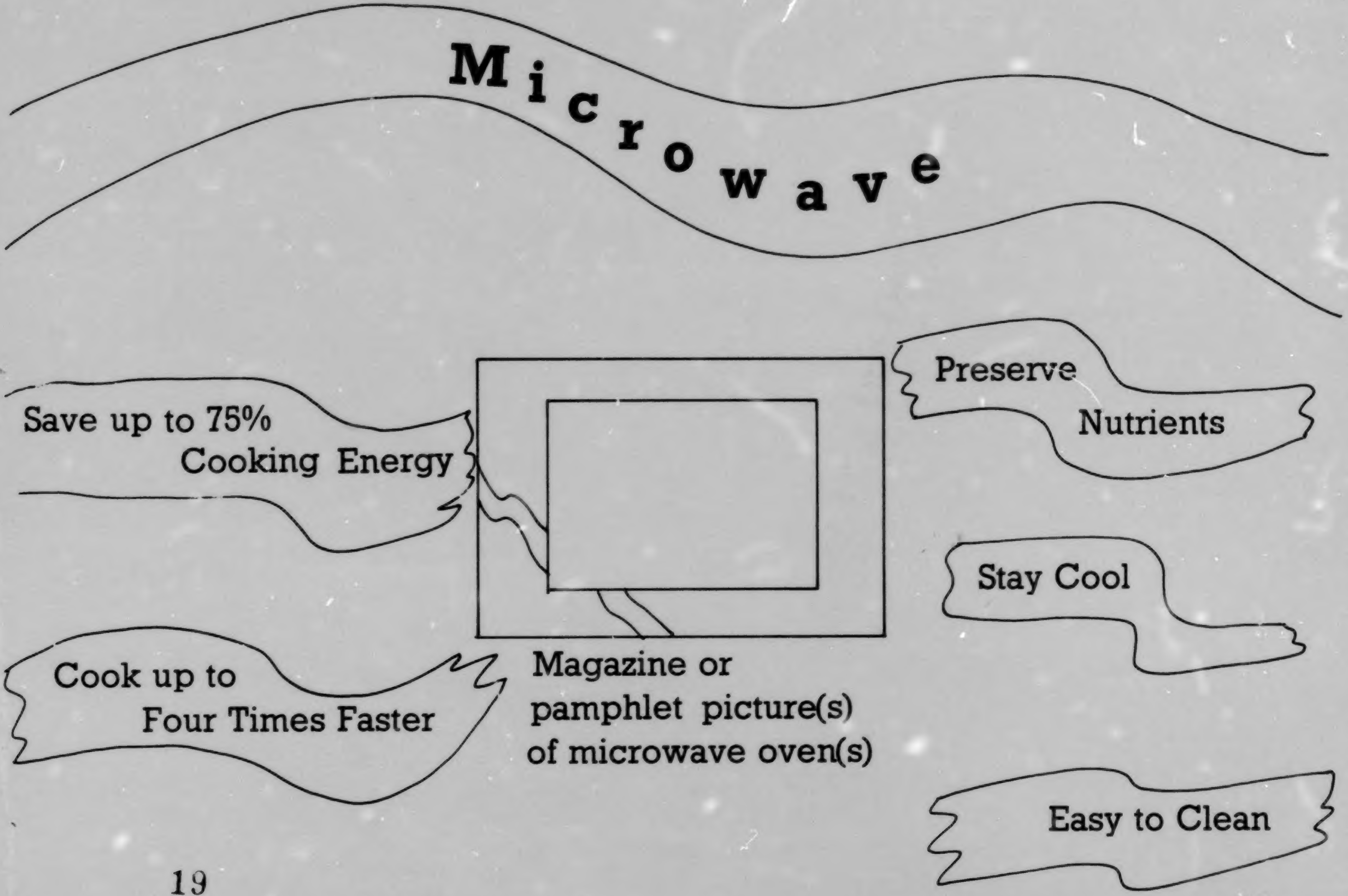
13. The "Keys to Success..." TM might also be copied as a handout for students to fill out individually. Use more than one sheet for additional listings.

14. Use magazine pictures of various kitchens to introduce section on decorating the kitchen.

15. See Home Economics I - Basic Core guide for section on selection of cookware and utensils.

**Career implementation

Bulletin Board Idea


Microwave
Save up to 75% Cooking Energy
Cook up to Four Times Faster
Magazine or pamphlet picture(s) of microwave oven(s)
Preserve Nutrients
Stay Cool
Easy to Clean

UNIT VI: TIME, ENERGY, AND RESOURCE MANAGEMENT

INFORMATION SHEET

I. Terms and definitions

   A. **Work center** - the place where each type of work (preparing, cooking and storing food) is done and where the needed resources are located

   B. **Work triangle** - triangle formed by the imaginary lines that follow the normal sequence of food preparation from the refrigerator to the sink to the range and back to the refrigerator

   C. **Underwriters Laboratories (UL) seal** - indicates electrical appliance has been tested for safety

   D. **American Gas Association (AGA) seal** - blue star seal which indicates that the appliance meets safety, durability and performance standards for gas appliances

   E. **Warranty** - seller's promise that a product will perform as specified or will be free of defects

   F. **Shortcut** - an easy way of doing something

   G. **Dovetailing** - keeping two tasks going at the same time

   H. **Work simplification** - the performance of tasks in the simplest way possible to conserve both time and energy

II. Kitchen work centers

   A. Planning the efficient kitchen

   NOTE: Explain to students that these are general suggestions. They may need to be adapted to fit individual lifestyles and needs.

      1. Work centers (HO 1)

         a. Refrigerator center (storage)

            1) Fresh and frozen foods

            2) Nonperishable foods in cabinets

            3) Foil and/or plastic wrap

            4) At least 30 inches of counter space

         b. Range center (preparation)

        1) All cookware
        2) Small utensil and potholders
        3) At least 21-24 inches of counter space

    c. Sink center (clean-up)

        1) All cleaning supplies
        2) Knives, cutting boards, etc.
        3) Some vegetables which do not needing refrigeration
        4) Dishes should be stored nearby.
        5) At least 24-30 inches of counter space on each side
        6) Dishwasher, food waste disposer, and trash compactor may be here.

    d. Mixing center

        1) At least 36 inches of counter space
        2) Mixing bowls, mixer, etc.
        3). Foods used in baking

    e. Eating center (optional)

    f. Planning center (optional)

        1) Cookbooks
        2) Household papers
        3) Bulletin board

    g. Laundry center (optional)

        1) Washer and dryer
        2) Laundry supplies

2. Work triangle (HO 2)

    a. Triangle formed by the imaginary lines that follow the normal sequence of food preparation from the refrigerator to the sink to the range and back to the refrigerator.

    b. Ideally, the total length of the triangle should not be more than 22 feet and no less than 12 feet.

3. Kitchen floor plans

   a. U-shaped

      1) Major work centers on three sides

      2) Most efficient

      3) Tight work triangle, eliminates wasted effort

      4) Plenty of storage space

      5) No traffic lanes through

      6) More expensive to build

      7) Two "dead" corners

   b. L-shaped

      1) Major work centers on two adjacent sides

      2) Often has an eating area in the open section of the room

      3) Traffic is kept to side

      4) Efficient but less expensive than U-shape

   c. Corridor

      1) Work centers are divided between two opposite counters

      2) Saves space

      3) Traffic may interfere if both ends of kitchen are open

      4) Little room for eating area

   d. One-wall

      1) All major work centers on one wall

      2) Saves space

      3) Counter and storage space may be limited

      4) Less expensive

   e. Variations

      1) Island - has a separate counter or work center in center of room; used well with L or U shaped kitchen; shortens work triangle

        2) Peninsula - counter extends into the room - used well with L-shaped kitchen

4. General kitchen planning guidelines (TM 1)

    a. Plan so traffic does not enter work triangle.

    b. Plan an eating space in the kitchen if at all possible.

    c. Plan kitchen adjacent to dining room (if house includes one).

    d. A window over the sink provides extra light, adds interest and allows for watching of children and other activities outside.

    e. Plan a back entrance into the house through or close to the kitchen.

    f. Plan cabinets to be continuous, with no broken spaces between appliances.

    g. Plan so there are no "dead" areas or wasted space.

    h. Overhead lighting should have a total of 150 watts if incandescent and 80 watts if fluorescent.

    i. Lighting should be planned for each work area: range, counter, and sink.

    j. Plan outlets so they are spaced 1 for every 4 feet.

5. Decorating the kitchen

    (NOTE: Decorative kitchen treatments should be sanitary, moisture-proof and heatproof.)

    a. Counter tops

        1) Laminated plastic

            a) Variety of colors available

            b) Moisture resistant

            c) Durable

            d) Easy to clean

            e) Extreme heat will damage

        2) Ceramic tile

            a) Many designs available

            b) Heatproof

        - c) Durable
        - d) Grouting between tiles may be difficult to clean.
        - e) Tiles may break if heavy object drops on them.
        - f) Expensive

- b. Floor coverings
    - 1) Vinyl-asbestos tile
        - a) Durable
        - b) Relatively low cost
        - c) Easy to install and maintain
        - d) Resists grease and alkalies
    - 2) All vinyl
        - a) Durable
        - b) Expensive
        - c) Easy to maintain
        - d) Resists grease and alkalies
        - e) Some do not need waxing
    - 3) Linoleum
        - a) Fairly durable
        - b) Moderately priced
        - c) Easy to maintain
    - 4) Kitchen carpeting
        - a) Fairly expensive
        - b) Comfortable to walk on
        - c) Not as noisy as hard materials
        - d) Must be vacuumed frequently
        - e) Spills must be wiped up immediately.
        - f) May stain

c. Wall coverings

1) Paint

a) Easy to apply

b) Must use an enamel paint with high-, semi-, or low-gloss finish

c) Relatively low-priced

2) Wallpaper

a) Must select washable type

b) Many designs available

c) Relatively low priced

3) Vinyl wall covering

a) Easy to maintain

b) Durable

c) Variety of patterns available

d) May be expensive

4) Paneling

a) Hides walls with flaws

b) May initially be expensive; upkeep inexpensive

5) Tile-ceramic or metal

a) Relatively expensive

b) Easy to maintain

6. Kitchens for the handicapped (TM 2)

a. An L- or U-shaped plan works best.

b. Countertops can be lowered and some base cabinets removed to permit a wheelchair to roll up and fit underneath.

c. Control switches for lights and appliances should be located at fronts of counter and low enough to be reached easily.

d. Shelving should be open and low enough for easy access.

        e. Toaster ovens, electric skillets, or microwave ovens can be substituted for electric or gas surface units.

B. Choosing appliances

1. General points to consider before buying

    a. Need

    b. Family requirements

    c. Space limitations

    d. Budget

2. General buying practices to follow

    a. Check safety standards

        1) Underwriters Laboratories (UL) seal

        2) American Gas Association (AGA) seal

    b. Check warranties

        1) Full warranty means the item will be repaired or replaced free of charge if it fails to operate properly (as long as warranty is in effect).

        2) Limited warranty means the customer can be charged for some of the repairs.

    c. Shop around for the best price and selection.

    d. Find out what energy-saving features are available.

    e. Research the quality and performance of the appliance by reading consumer testing magazines and talking to friends.

    f. Look for signs of quality construction.

    g. Buy from a reputable dealer.

    h. Ask dealer to give you a complete demonstration of all features.

    i. Do not hesitate to ask questions.

    j. Find out if the dealer services the appliance and if not, where service can be obtained.

    k. Ask about delivery and installation charges.

3. Large appliances
    a. Ranges (TM 3)
        1) Fuels
            a) Gas
            b) Electricity
        2) Style features (TM 4)
            a) Free-standing
            b) Built-in ranges
            c) Drop or Slide-in ranges
        3) Special features
            a) Double conventional oven
            b) Combination of conventional oven with convection or microwave oven
            c) Griddle, grill, and rotisserie units
            d) Thermostatically controlled cooking units
            e) Hoods
            f) Self-cleaning ovens
            g) Continuous cleaning ovens
            h) Easy clean features
        4) Use and care
            a) Read and follow instruction manual.
            b) Practice good safety habits.
            c) Do not drop heavy objects on top of range.
            d) Wipe up spills immediately.
            e) Wash the surface and parts of the cook top regularly
    b. Microwave ovens
        1) Types of ovens
            a) Basic or single power microwave oven

b) Variable power microwave oven

c) Double-oven microwave ranges (conventional oven below the cooking top and a microwave oven on top)

d) Combination oven (single oven which can be used for microwave or conventional cooking at the same time or separately)

e) Carousel ovens

f) Digital control panel or dial

2) Advantages

a) Foods can be defrosted, cooked, or reheated in a fraction of the conventional cooking time.

b) Cleanup is easier because food spatters do not bake onto oven walls.

c) Cooking is cooler.

d) Some foods are more nutritious (because cooking time is shorter and less water is used).

e) Energy is saved (up to 75% less used than conventional oven).

f) Paper and glass cookware can be used.

3) Disadvantages

a) Color (browning) and texture of some foods may not be as desirable as with conventional methods.

b) Conventional recipes need adapting.

c) Metal cookware cannot be used.

d) Cooking time multiplies with increase of quantity (ex. one baked potato takes 4 min.; 2 potatoes take 7 mins.)

e) Foods may require frequent checking, rotating or stirring.

f) Large foods may not cook uniformly.

4) Do and don'ts of microwave cooking

a. Do use a saucer in the bottom of a dish or a rack for roast.

b. Do rotate foods to distribute waves evenly.

c. Use food approximately equal in size and shape.

d. Do use a glass or take middle out of a meat loaf or casserole in order for microwaves to cook food evenly.

e. Do use waxed paper to cover meats, casseroles or other foods to keep from splattering.

f. Do allow food to stand.

g. Do set oven for approximately one-fourth of conventional oven time, then add more time if needed.

h. Don't use a metal rack or pan; metal reflects microwaves off food.

i. Don't use a mercury thermometer in the microwave oven.

j. Don't use aluminum foil (some exceptions).

k. Don't cook eggs without breaking yolk, or potatoes without piercing skin.

l. Don't operate the microwave when it is empty.

m. Do not try to can in the microwave.

n. Do not allow soil to accumulate on the sealing surface around the door.

c. Convection ovens

1) Cook faster than conventional ovens (decrease time ¼-½)

2) Use lower temperatures than conventional ovens (as much as 75 degrees Farenheit)

3) Cook foods more evenly than either conventional or microwave ovens.

4) Baked foods are often higher in volume and more evenly browned.

5) The same cooking utensils used in conventional ovens can be used in convection ovens.

6) A fan circulates hot air around the food.

7) Use less energy than conventional ovens.

8) Foods brown better than in a microwave oven.

9) Countertop models operate on a standard 120-volt household circuit.

10) Do not need to be preheated.

d. Refrigerators (TM 5)

1) Styles

   a) One-door

   b) Two door (top freezer, bottom freezer, side freezer)

   c) Compact/portable

2) Defrosting

   a) Manual defrost

   b) Automatic defrost

   c) Frostless

3) Special features

   a) Ice maker

   b) Ice and water dispenser

   c) Adjustable shelves

   d) Temperature controlled meat keeper

   e) Reversible doors (The door should open toward a countertop near the sink.)

4) Use and care

   a) Wrap foods tightly to prevent odors.

   b) Avoid frequent opening of the door.

   c) Keep both the inside and outside clean. Use baking soda and water solution for interior. Clean exterior with warm, soapy water and rinse.

   d) Wash ice cube trays, door gaskets, crisper and sheives in warm, soapy water; rinse and dry carefully.

   e) Follow manufacturer's instruction manual for cleaning of the condenser or any other parts.

e. Freezers

1) Styles
    a) Chest freezer
    b) Upright freezer
2) Defrosting
    a) Manual defrost
    b) Automatic defrost
    c) Frostless
3) Use and care
    a) Place in a cool, dry, well-ventilated area.
    b) Wrap foods in moisture- and vapor-proof materials.
    c) Use lock to prevent children from opening.
    d) A safety alarm or light indicates when the temperature has become too high or if the freezer is not operating.
    e) In case of power failure, keep door closed.
    f) If power is off more than 1-2 days, pack dry ice around foods in freezer.
    g) Clean the exterior of the freezer when needed with a damp, soapy cloth; rinse and dry. Do not use an abrasive cleaner.

f. Dishwasher (TM 6)
1) General considerations
    a) Saves time and personal energy
    b) Dishes are more sanitary.
    c) Requires special plumbing and electrical hook-ups
2) Styles
    a) Built-in
    b) Portable
3) Special features
    a) Variety of cycles

b) Energy-saving options

4) Use and care

a) Run only when there is a full load.

b) Scrape dishes carefully before loading.

c) Load according to manufacturer's instruction.

d) Use automatic dishwashing detergent.

e) Allow dishes to cool before removing from dishwasher.

f) Dishwashers are self-cleaning but occasionally the drain screw must be emptied.

g) If repeated use of hard water causes lime deposits in the machine, add 2 cups of vinegar to the empty dishwasher and run through cycle.

h) Never use abrasive cleaners to clean any part of the dishwasher.

i) Occasionally wipe the outside of the machine with a soapy cloth; rinse and dry.

Keep water temperature between 140-160 degrees Farenheit with adequate water pressure.

g. Food waste disposers

1) Styles

a) Continuous feed disposer

b) Batch feed disposer

2) Use and care

a) Check to see that there are no knives, spoons, or other utensils in the sink before starting the disposer.

b) Run the cold water before activating the disposer and for a short time after the disposer is turned off.

c) Never pour lye or chemical drain cleaners down the sink.

d) Use disposer only to grind food.

e) Always keep fingers away from the disposer.

h. Trash compactors

1) Styles
   a) Built-in
   b) Freestanding

2) Use and care
   a) Operate according to manufacturer's directions.
   b) Remove bag after compacting and insert a new, clean bag.
   c) Do not try to compact aerosol cans or flammable materials.
   d) Avoid putting glass or sharp items along edges of track.

3) Special features
   a) Tilt-away bins or drop down sides
   b) A built-in litter line for throwing away small items without pulling out drawer
   c) Easy-to-install mountings
   d) A touch-toe bar
   e) A deodorizing spray

NOTE: Use TM 7, Keys to Success. Have students orally list key points to consider in appliance selection.

4. Small (portable) appliances (TM 8)

   a. General points to consider before buying small appliances

      (NOTE: Also follow general points to consider before buying and buying practices listed earlier for all appliances.)

      1) Is it sturdy and well-balanced with no rough or sharp edges?
      2) Are the controls clearly marked and easy to operate?
      3) Is it easy to clean? Immersible?
      4) Are any parts dishwasher-safe?
      5) If the appliance heats up, are handles and controls heat-resistant?
      6) Can a non-electric tool do the same job? (Do you need it?)
      7) Will you use the appliance often enough to justify the cost?

   8) Will this appliance perform more than one task?
   9) Is the capacity adequate for your needs?
   10) Are parts easy to assemble?
   11) Is storage space available with easy access?

b. Toaster
   1) Browns bread products quickly and evenly on both sides
   2) 2- and 4- slice models available
   3) Available with extra-wide or long openings

c. Toaster-oven
   1) Substitutes for both a toaster and a regular oven
   2) Larger than toaster and more energy efficient than a larger oven
   3) Comes in a wide range of sizes

d. Mixer
   1) Makes it easy to mix, beat, whip and blend ingredients
   2) Available in portable, stand, and heavy-duty models

      (NOTE: Each of these has advantages and disadvantages.)

   3) Number of speeds varies.
   4) Portable mixers can be easily stored but stand and heavy-duty mixers often are left out on the counter.

e. Blender
   1) Chops, purees, liquifies and blends ingredients
   2) Has a tall container with high-speed, motor-driven blades in the bottom
   4) Brands differ in number of speeds, materials used, type of controls, and power of the motor.
   5) A removable cutting unit, or blade, makes the blender easier to clean.

f. Food processor
   1) Slices, chops, shreds, grinds, grates, and mixes

2) Has a motor base, detachable bowl, and a cover with a chute and pusher to "feed-in" the food

3) Comes with several blades - a very sharp, double-sided blade for chopping and various specialized cuttery discs for slicing or shredding

4) Most operate at only one speed but some offer a range of speeds.

g. Electric skillet

1) Fries, simmers, roasts and bakes (some have broiler elements)

2) Heat is controlled by a thermostat.

3) Available in round, square and rectangular shapes with regular and extra-high sides

4) Heat control is removable so most skillets can be immersed in water for easy cleaning.

5) Interiors may have non-stick finishes.

6) Some brands have accessory items available, such as broiler lids and slow-cooker crock liners.

h. Slow cooker

1) Cooks stews, roasts, or soups for a long period of time

2) Low wattage heating elements on the bottom or around the sides heat the food.

3) May be filled and turned on in the morning and will cook all day unattended

4) Will tenderize tougher, less expensive cuts of meat

5) Some units have removable containers for easy cleanup.

i. Coffee maker

1) Types

a) Perculator

b) Automatic drip

2) Automatically brews coffee after it is filled with ground coffee and water

3) Keeps coffee at drinking temperatures

4) Some coffee makers have strength controls for making light or dark coffee.

5) Available in a variety of sizes, from two cups to large capacity urns

j. Countertop oven

1) Compact, portable ovens that bake, roast and broil

2) Countertop convection ovens are also available

k. Waffle baker and grill

1) May be a combination appliance with reversible grids

2) Makes waffles on rough side; on smooth side, bacon, eggs, french toast, pancakes, and toasted sandwiches can be cooked.

l. Electric knife

1) Simplifies task of carving and slicing

2) Has removable blades

3) Works well on hard-to-cut items such as soft breads, cakes, warm meats, ice cream, etc.

4) May have electrical cord or batteries

m. Small appliance use and care

1) Always read and follow the manual that comes with the appliance

2) Most heating appliances (toaster ovens, skillets) should be on their own electrical circuit to prevent overloads.

3) For appliances with plug-in heat controls: first unplug from wall outlet, then unplug heat control from appliance. CAUTION: control may be hot.

4) Turn appliance off when plugging in or disconnecting.

5) When disconnecting the appliance, always pull the plug and not the cord.

6) Keep electric cords in good repair.

7) When cleaning, immerse the appliance in water only if the use-and-care book says you can.

8) Store appliances within easy reach.

9. Unplug a heated appliance right after use and allow it to cool before cleaning and storing.

10. Clean all appliances after every use.

11. Do not use near water.

12. Do not use with a regular extension cord.

5. Buying used appliances

   a. Types

      1) Rebuilt appliance means it has been checked, repaired and is in working condition.

      2) Reconditioned appliance means it has been cleaned, perhaps painted, and is in working condition.

      3) "As is" appliance means it may or may not be clean and may not even work.

   b. What to look for

      1) UL safety seal if electric; AGA seal if gas

      2) Plug, cord, and wiring insulation in good condition.

      3) Parts and finish in good condition - no rust, dents, scratches, etc.

      4) Cleanliness

   c. Where to look

      1) Private homes (newspaper classified ads)

      2) Appliance or department stores

      3) Secondhand stores

      4) Independent repair shops

      5) Household movers

C. Work simplification (Organization and Management)

1. Develop a work and time schedule

   a. Rotate duties (at home you will probably not have as many members to work with as at school, possibly you will have to do all duties)

LABORATORY DUTIES AT SCHOOL

	PLANNING DAY	LAB DAY
Student 1	1. Select recipe(s) with the help of other lab partners 2. Prepare market order 3. Plan table setting and decoration if needed	1. Pick up supplies from supply table. 2. Take responsibility for food preparation 3. Put equipment and dishes away 4. Clean ranges and table tops 5. Make kitchen check prior to that of the teacher
Student 2	1. Assist student 1 with selection of recipe(s) 2. List equipment needed 3. Help plan table setting and decoration if needed	1. Set up dishwater 2. Wash off cabinet counter before and after lab 3. Get out equipment 4. Assist student 1 with food preparation (designate duties) 5. Dry dishes 6. Put towels in laundry
Student 3	1. Assist student 1 with selection of recipe(s) 2. Copy recipe(s) if necessary or sketch table setting	1. Wash off table top 2. Set table or prepare serving dish 3. Help with food preparation when requested to do so by student 1 4. Serve food 5. Wash dishes (when possible during lab) 6. Clean sink

NOTE: Adapt this to your particular class situation.

NOTE: For the next lab period, jobs will rotate so that no student has same duties twice in a row. This plan could be developed by the students as a group or by a group manager. It could be modified for use at home with family members. At home you may want to retain the same duties for a week at a time.

b. Prepare a step by step schedule

NOTE: Done by group or group manager in school lab situation; at home, done by homemaker.

1) Look over menu and recipes.

2) Plan the steps and order in which you will do each task. Remember to be flexible.

(NOTE: The beginning cook needs to write down the work plan; the experienced cook may make mental plans unless the menu is complicated.)

a) List each item on menu. Include detailed preparation and serving steps, listing duties such as table setting and cleanup.

b) Figure approximate time for each step and list total preparation time for the item.

c) Add total cooking (chilling, etc.) time necessary.

d) Figure approximate time required to place in serving dish, garnish, and get ready for the table.

e) Add total time.

f) Counting backward from the serving time, calculate time to begin preparation of each task.

g) Assign person(s) to do each task.

EXAMPLE A: FINAL MEAL PREPARATION SCHEDULE

Menu

Baked Chicken
Baked Potato
Green Bean Casserole
Citrus Salad
Rolls/Butter
Coffee/Milk
Fudge Sundae

Meal to be served at 6 p.m.

Step A		B	C	D	E	F	G	*H (optional)
Food	**Preparation Needed**	**Preparation Time**	**Cooking Time**	**Serving Time**	**Total Time**	**Begin Preparation**	**Person To Do Job**	**Time Line**
Chicken	Remove wrapping, clean Coat with seasoned topping mix Put on greased baking pan Place in oven Remove from oven and place on platter, garnish	20 min	60 min	10 min	90 min	4 40 p m	Student 1	
Potatoes	Scrub potatoes Place in oven Remove from oven and place on serving plate	15 min	70 min	5 min	90 min	4 35 p m	Student 2	
Green Beans	Place beans in casserole with other ingredients Garnish	10 min	20 min	5 min	35 min	5 30 p m	Student 3	
Rolls	Open package and place rolls on pan. Remove from pan Place in basket	5 min	10 min	5 min	20 min	5 45 p m	Student 2	
Citrus Salad	Section oranges, grapefruit Wash lettuce, separate leaves Assemble salad; refrigerate Add bottled dressing before serving	30 min	—	5 min	35 min	5 00 p m	Student 1 & 2	
Coffee	Heat water in teakettle Put instant coffee in cups Pour water	—	10 min	10 min	20 min	5 40 p m	Student 3	
Milk	Pour into glasses			5 min	5 min	5 55 p m	Student 2	
Fudge Sundae	Dish out ice cream, and spoon	—	—	10 min	10 min	Prepare after main course	Student 1	
Set Table		15 min	—	—	15 min	4 10 p m	Student 3	
Clean Up		20 min			20 min	6 30 p m	all	

***Optional Step H:** If this meal is prepared by one person at home, it may be helpful to list the major tasks and beginning times in order as shown.

WORK SCHEDULE-TIME LINE

4 10 P M	Set table
4 35 P M	Scrub potatoes and put in oven. Turn on oven to 375°F
4 40 P M	Prepare chicken and put in oven
5:00 P M	Prepare salad and refrigerate
5 30 P M	Prepare green bean casserole and put in oven
5 45 P M	Put refrigerator rolls in pan and put in oven
5 50 P M	Put teakettle of water on to heat
5 55 P M	Pour milk into glasses. Put butter or margarine on table

After main course is eaten. Prepare sundaes

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EXAMPLE B: FINAL MEAL PREPARATION SCHEDULE

MENU

Baked Ham
Scalloped Potatoes
Fresh Asparagus Spears
Lettuce Salad French Dressing
Crescent Rolls
Fresh Strawberry Sundae
Coffee Milk

Serve: 6:00 P.M.

PREPARATION TIME ZONES	TIME SCHEDULE
Advance Preparation:	
1. Prepare ham for baking	Complete these preparations at any convenient time in your schedule before 4:00 P.M.
2. Wash potatoes	
3. Wash, trim asparagus, refrigerate	
4. Wash, cut lettuce into wedges, refrigerate	
5. Wash, prepare strawberries, refrigerate	
6. Measure coffee into percolator basket	
More Than an Hour to Cook:	
1. Set oven to preheat and set table	4:00 P.M.
2. Place ham into oven	4:10
3. Prepare scalloped potatoes	4:11
Bake scalloped potatoes	4:30
4. Clean up work area	
Less Than an Hour to Cook:	
1. Cook asparagus	5:35
2. Prepare coffee in percolator	5:36
3. Shape refrigerated crescent rolls and bake	5:44
4. Select and arrange conveniently near range, required serving dishes	
Last-Minute Preparations:	
1. Remove butter from refrigerator and pour milk	5:50
2. Arrange lettuce wedges on plates, add dressing	5:52
3. Remove rolls from oven and arrange in napkin-lined bread basket	5:54
4. On serving platter, arrange ham and asparagus	5:55
5. Remove scalloped potatoes from oven	5:58
6. Serve dinner	6:00

EXAMPLE C: FINAL MEAL PREPARATION SCHEDULE: TWO-DAY LAB

MENU: Cheese Fondue, Tossed Salad, Iced Tea

DAY ONE	TASK	TIME
All	Get ready to work	10:00-10:05
Student 1	Pick up supplies	10:05-10:10
Student 2	Set up dishwater	10:05-10:10
	Get out equipment	
	Wash counters	
Student 1	Prepare cheese fondue and store	10:10-10:30
Student 2	Blend cottage cheese and milk in blender for Student 1	10:10-10:15
Student 3	Shred cheese for Student 1	10:10-10:20
Student 2	Prepare vegetables for salad and store	10:15-10:30
Student 3	Cut bread into cubes and store	10:20-10:30
All	Clean up	10:30-10:40

DAY TWO	TASK	TIME
All	Get ready to work	10:00-10:05
Student 1	Pick up supplies	10:05-10:10
Student 2	Set up dishwater	
	Get out equipment	
	Wash counters	10:05-10:10
Student 3	Set tables	10:05-10:10
	Prepare iced tea	10:10-10:15
Student 1	Heat fondue and serve	10:10-10:15
Student 2	Add salad dressing and serve salad	10:10-10:15
Student 3	Serve	10:15
All	Eat	10:15-10:30
All	Clean up	10:30-10:40

2. Use good lab and kitchen management

   a. Organize work area

      1) Keep everything where it belongs (organize).

      2) Arrange and store food and equipment at the work centers where they will be used. (Review HO 1)

      3) Keep your work space free of spilled food.

      4) Keep utensils in order; rinse and stack mixing bowls and preparation utensils after use, ready to work.

      5) Use a tray to hold soiled dishes, spoons and other small utensils as you work.

   b. Save personal energy (TM 9)

      1) Save steps and motions by conveniently arranging work center.

      2) Keep food supplies and equipment handy.

      3) Use a tray to carry several food items or utensils, and save steps.

      4) Practice good posture - you will be less tired.

      5) Have work surfaces and wall cabinets at comfortable reach. Less muscular strain and expenditure of energy are experienced.

      6) Eliminate all unnecessary motions.

      7) Have duplicate utensils, seasonings, etc. (salt and pepper shakers, measuring spoons, etc.) so there will be a set in each center where they're needed.

      8) Follow rules for efficient dishwashing

         a) As soon as the pans and dishes used in preparation are emptied, fill them with water and add a little detergent to let them soak.

         b) Use a rubber scraper to scrape waste into disposal, garbage bag, or newspaper.

         c) If dishes will not be washed immediately, rinse dishes coated with egg, milk or starchy food with cold water and wipe greasy pans with paper towels.

d) If using automatic dishwasher, follow manufacturer's instructions for loading, selecting cycle, etc.

e) If washing by hand, stack dishes at side of sink which is most convenient (usually dishes should be washed on one side of sink and rinsed, drained, and dried on side closest to the cabinets where most dishes are stored.)

f) Dishes should be stacked in the order in which they will be washed - glassware and cups, flatware, dinnerware and cooking utensils (from least to worst soiled).

g) Use a measured amount of dish detergent appropriate for your water.

h) Immerse only a few dishes at a time in hot, sudsy water (Rubber gloves are recommended to protect hands)

i) Wash wooden and wooden-handled items quickly and do not allow to soak.

j) Wipe all surfaces of dish with sudsy cloth or sponge.

k) Change dishwater if it becomes greasy, mirky, or cold.

l) Rinse all washed dishes in very hot water.

m) Drain dishes by placing in an orderly manner in dish drainer.

n) Dishes may be left to dry in drainer (most sanitary and saves time and energy) or may be dried with a clean dish towel.

9) Follow rules of safety. (See Home Economics I - Basic Core)

c. Save home energy

1) Use energy-intensive appliances, such as ovens, dishwashers, clothes washers, and dryers early in the morning or late in the evening, when energy demand is less.

2) Do not preheat the oven unnecessarily. Most dishes, including most baked goods, do as well without preheating.

3) Cook several foods in the oven at the same time and serve one-dish meals.

4) Do not open the oven door frequently to check cooking progress.

5) Match the size of the pan to the size of the burner.

6) Turn off oven and electric burners several minutes before food is finished cooking.

7) Never use the oven to heat the room - it is not safe.

8) Do not overload the refrigerator or open the refrigerator door unnecessarily.

D. Time-saving strategies

1. Shortcuts (easy ways of doing a task) (TM 10)

NOTE: These shortcuts save time and energy; use what works best for you, considering your budget and personal preferences.

a. Plan ahead to use as few cooking utensils as possible.

b. Use only one knife, spoon, or measuring cup for several tasks by rinsing them after each use.

c. Keep tools together that are frequently used together.

d. Keep small utensils at the same place as, or near the food with which it is used - that is, keep a paring knife, fruit juicer, and cutting board near the fruit; keep a coffee measure in the coffee container; keep a scoop in the flour and sugar canisters.

e. Keep pepper, salt, and flour in shakers at the range.

f. To avoid several trips to and from the refrigerator, take from it at one time all the food needed in the preparation of a dish or a meal.

g. Before beginning to prepare a food, assemble all the necessary ingredients and utensils.

h. Reuse measuring cups and spoons for dry and liquid ingredients without washing them in between by measuring dry ingredients first and then liquids or fats.

i. Cook vegetables without paring when possible, but brush them well.

j. For easy disposal of waste and to make the cleaning of work surfaces quicker and easier, pare and peel fruits and vegetables over a paper.

k. For paring carrots and potatoes quickly, use a peeler instead of a knife.

l. To cut celery and snap beans into pieces quickly, hold lengthwise pieces close together on board and cut across with a sharp knife.

m. Scrape the bottom and side of a used mixing bowl with a rubber scraper to make the bowl easier to wash.

n. Use kitchen shears to cut pieces of bacon, parsley, figs, chives, dates, or pimento.

o. Use a slicing board when cutting bread into cubes.

p. To make the cleanup job easier when broiling, line the broiler pan with foil or use a disposable foil broiler pan.

q. To avoid having to reroll and cut the dough from between round biscuits, cut biscuits into squares with a knife.

r. Keep grated cheese in a jar in the refrigerator for ready use.

s. For quicker cooking, bake meat loaf in individual servings or in muffin tins.

t. Cook enough potatoes at one time for two meals.

u. Use wax paper for the flour or crumbs to coat pieces of food for frying. Heavier food such as meat or chicken may be shaken with the flour or crumbs in a clean paper bag.

v. To avoid washing the rotary beater between beating egg yolks and whites separately, beat the whites first.

w. Heat milk in the same pan with the cooked potatoes to be mashed instead of using a separate pan.

x. Set the table for breakfast at night. The table may be set for the other meals while food is cooking or chilling.

y. Use a tray when setting the table so as to carry most of the appointments to the table at one time.

z. Prepare one-dish meals.

aa. To save time in serving and cleaning up, serve meals directly onto individual plates from the kitchen.

bb. Put leftover food directly into containers that may be used for reheating the food.

cc. Wipe greasy frying pans with paper towels before washing.

dd. Clean the flour sifter with a dry vegetable brush.

ee. For easier dishwashing, soak syrupy or greasy dishes in hot water and eggy, starchy, or milky dishes in cold water.

ff. Use the form of food which is most convenient.

2. Examples

   a. **Breakfast**

      1) Orange juice - use cartoned, canned, or frozen juice instead of fresh.

      2) Cereal - use ready-to-eat or precooked forms.

      3) Toast - toast all slices at once in oven, or toast in toaster at table.

      4) Milk - serve in kitchen or from a pitcher on the table.

      5) Coffee - use instant coffee instead of brewed.

   b. **Lunch**

      1) Cream of tomato soup - use canned condensed soup instead of home-prepared.

      2) Swiss cheese, lettuce, mayonnaise sandwich - use packaged sliced cheese and commercial mayonnaise, and serve on plate with soup.

3. Dovetailing - keeping two tasks going at the same time

   (NOTE: Below are examples of dovetailing tasks; while they may or may not fit your work style, they do save time.)

   a. As breakfast cereal is cooking, pour milk in glasses or get bread ready for toasting.

   b. As soup is heating for lunch, make sandwiches or arrange salad.

   c. As water is heating to boiling, pare potatoes or clean and peel onions.

   d. As meat loaf is baking, prepare and cook vegetable, and arrange salad.

   e. As roast of meat is cooking, set table, prepare and cook vegetables, and arrange salad or whip cream for dessert, which was made earlier in the day.

   f. While cleaning up after breakfast or lunch, bake a pudding or make a gelatin dessert or cut and bake cookies from a previously made dough.

g. While cleaning up after dinner, section grapefruit or squeeze orange juice for breakfast.

h. While dusting or vacuuming, bake an already prepared casserole dish for lunch.

i. While clothes are being washed in automatic washer, make a cake or pie for dinner dessert.

j. While baking a casserole, dust or vacuum the living room.

k. As rice is cooking, bread and fry fish or chop and stir-fry vegetables.

l. As brisket simmers and potatoes boil, relax with a book.

4. Alternatives to the use of time and energy

   a. Money ("Buying time and energy")

      1) Purchase ready made foods

      2) Purchase kitchen appliance for convenience

      3) Hire kitchen help

   b. Knowledge, skills and abilities

      1) Knowing when, where and how to shop to gain the most value for each dollar spent and to save time and energy (using list, etc.)

      2) Knowing how to efficiently prepare foods in a variety of creative ways

      3) Knowing how to use work simplification techniques

      4) Knowing how to organize the kitchen

   c. Time itself

      1) Use time to plan ahead to save more time later.

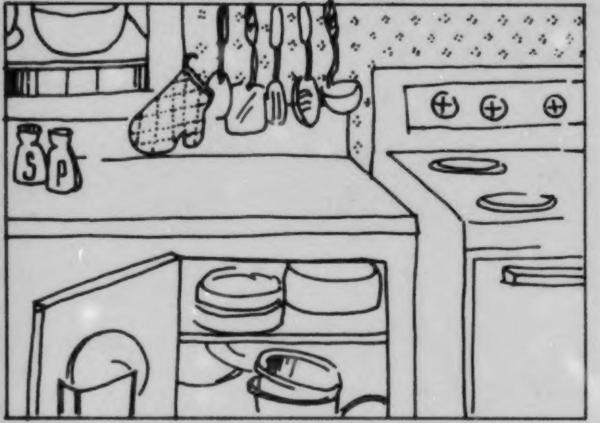
      2) Use time to organize kitchen to save more time later.

      3) Use time to prepare extra food ahead for later use.

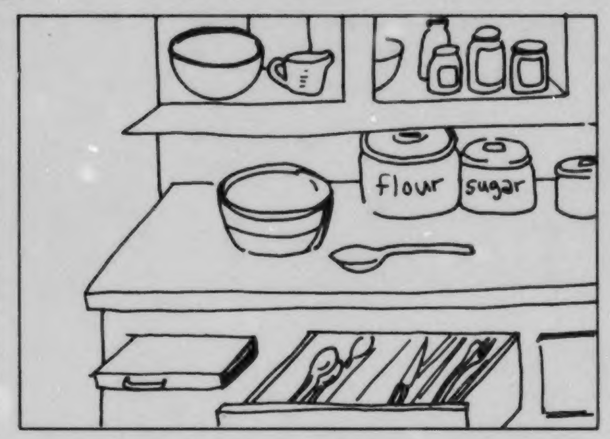
      4) Use time to keep records of good menus, recipes, grocery lists, etc.

      (NOTE: Use TM 11, Keys to Success. Have students orally list key points in saving time and energy.)

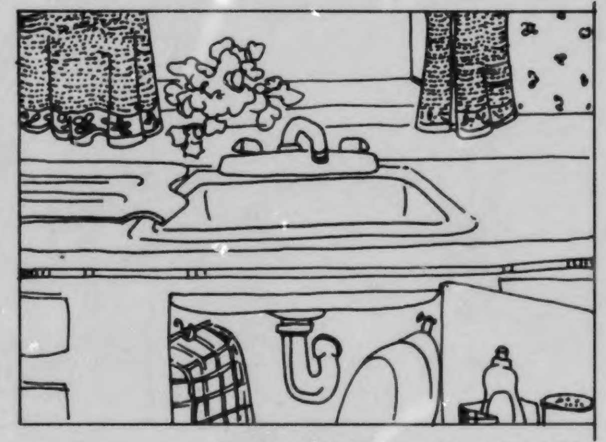
Equipment at the Three Work Centers



Cooking and Serving Center



Mixing and Preparation Center



Sink and Cleaning Center

- Cake racks and turner
- Can opener
- Coffeemaker
- Cooking forks and spoons
- Griddle
- Knives
- Measuring spoons
- Potato masher
- Pot holders
- Pots and pans
- Serving bowls, dishes, and platters
- Skillets
- Stove-top mat
- Teakettle
- Teapot
- Thermometers (meat, candy)
- Trays
- Turners
- Wooden spoons

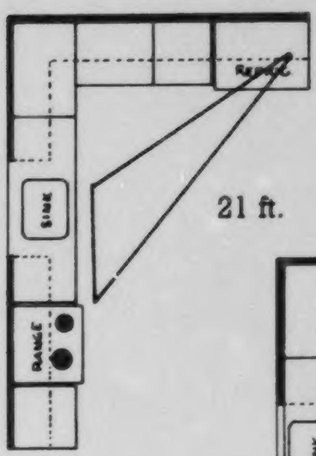
- Baking pans
- Beaters
- Blender
- Bread box
- Bread pans
- Cake pans and cooling rack
- Canister
- Casseroles
- Chopping block
- Cookbooks
- Cookie cutters
- Cookie sheets
- Custard cups
- Cutting board
- Flour sifter
- Food chopper
- Fruit juicer
- Grater
- Grinder
- Knife rack
- Knife sharpener
- Knives
- Measuring cups
- Measuring spoons
- Mixer
- Mixing bowls
- Molds
- Pastry blender
- Pastry cloth
- Recipe file
- Refrigerator dishes
- Roasting pans
- Rolling pin
- Salad bowls
- Scissors
- Spatula
- Strainer
- Tablespoons and teaspoons

- Apron
- Bottle opener
- Coffepot
- Colander
- Dinnerware
- Dishcloths
- Dish drainer
- Dishwashing utensils
- Double boiler
- Drain board
- Flatware
- Funnel
- Glassware
- Knives
- Plate and bowl scraper
- Saucepans
- Sieve
- Storage containers
- Strainers
- Vegetable brush
- Vegetable peeler
- Wastebasket

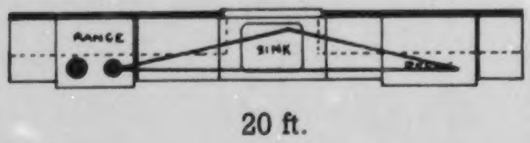
HO 2

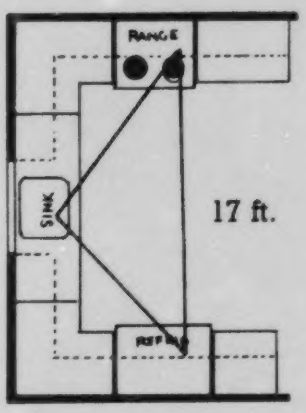
Efficient Kitchen Plans

L-shaped Layout

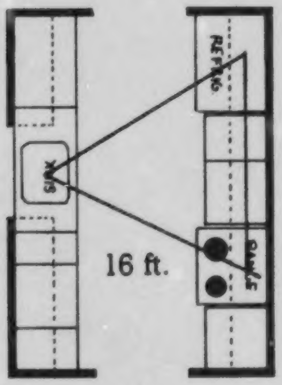

REFRIG.
SINK
RANGE
21 ft.

Straight-line Layout
(one wall)

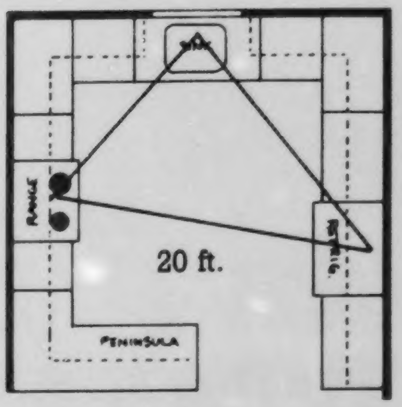

RANGE
SINK
REFRIG.
20 ft.


RANGE
SINK
17 ft.
REFRIG.

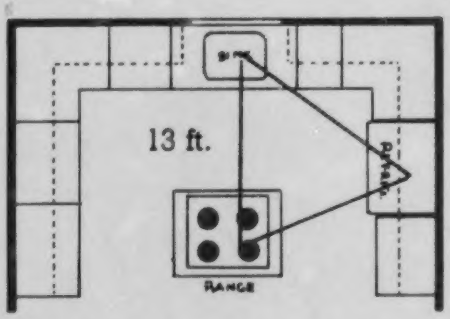
U-shaped Layout


REFRIG.
SINK
16 ft.
RANGE

Corridor Layout


SINK
RANGE
20 ft.
REFRIG.
PENINSULA

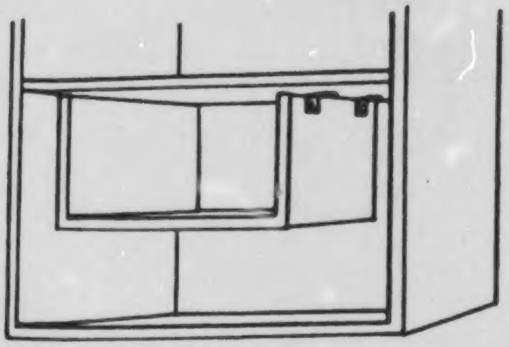
Peninsula Layout


SINK
13 ft.
REFRIG.
RANGE

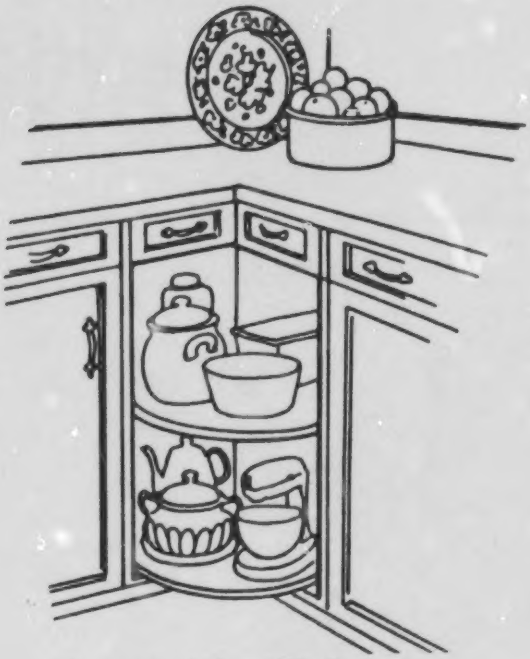
Island Layout

TM 1

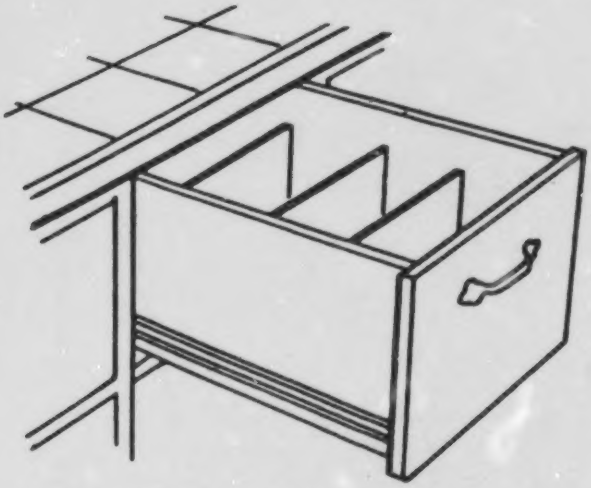
Kitchen Storage Ideas



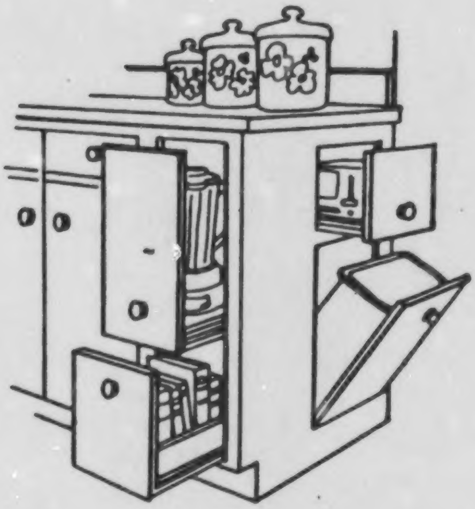
Extra Shelf Under Cupboard

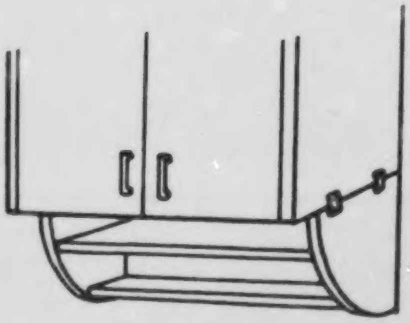


Turntable Cabinet



Box-Type File Drawer

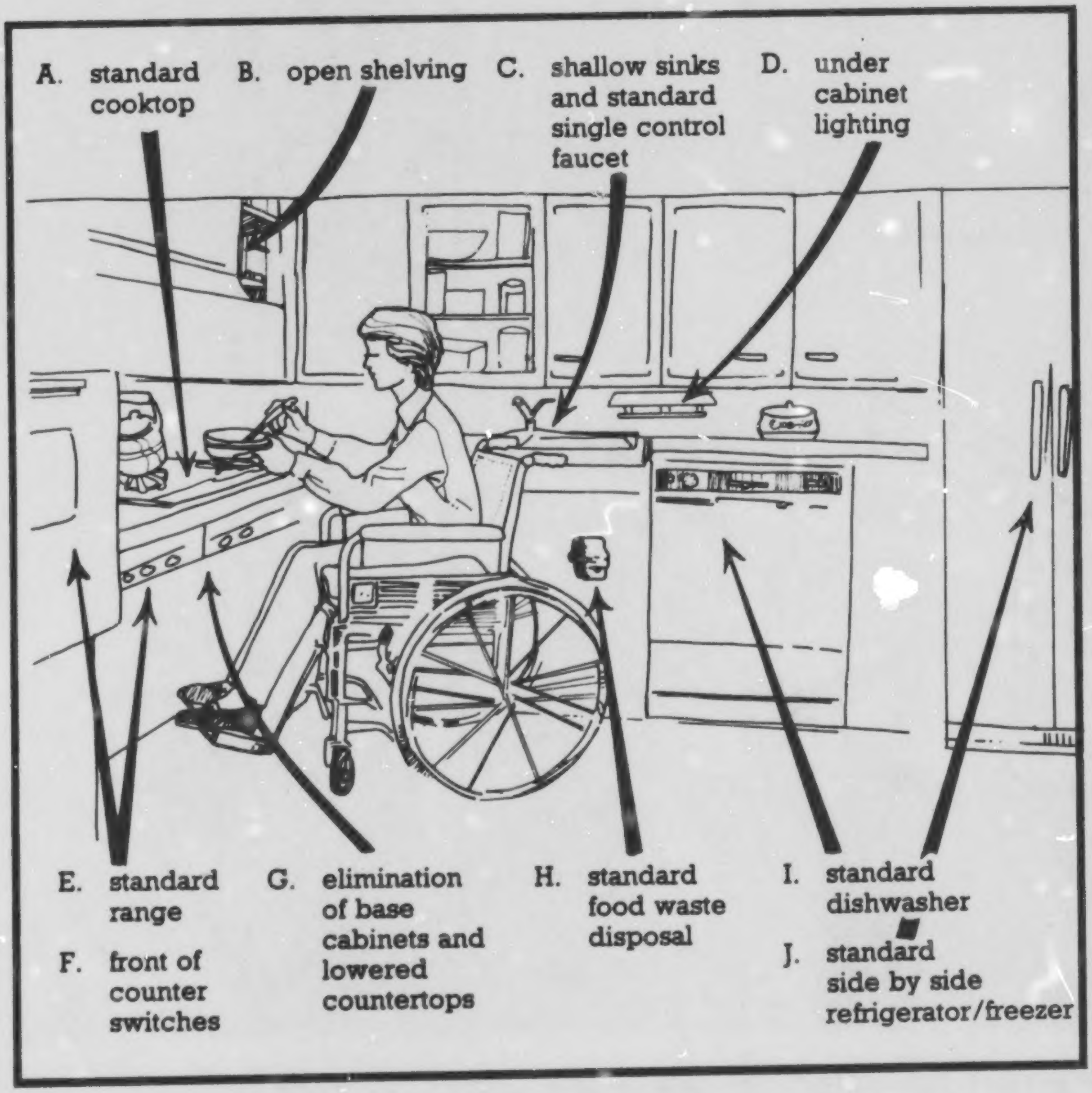




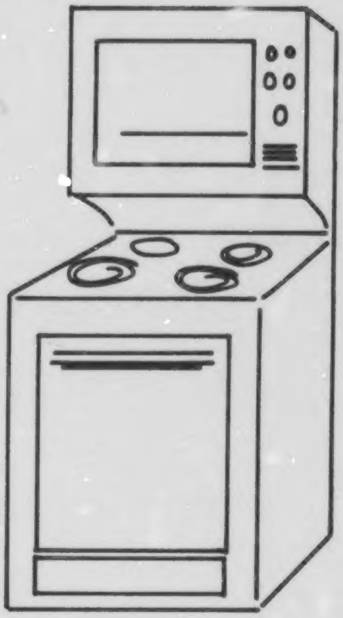
Hanging Shelves

Tilting and Roll-Out Bins

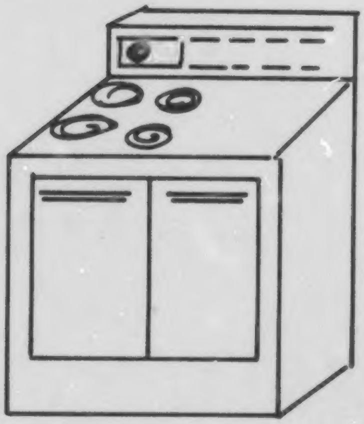
Kitchens for the Handicapped


A. standard cooktop
B. open shelving
C. shallow sinks and standard single control faucet
D. under cabinet lighting
E. standard range
F. front of counter switches
G. elimination of base cabinets and lowered countertops
H. standard food waste disposal
I. standard dishwasher
J. standard side by side refrigerator/freezer

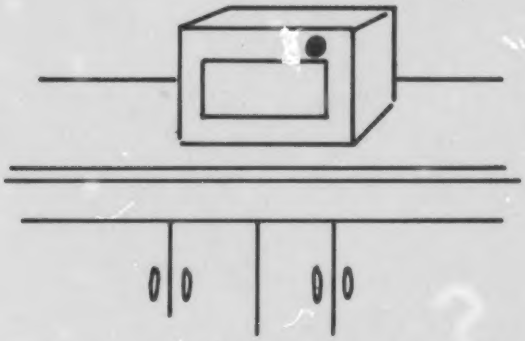
Styles of Ranges



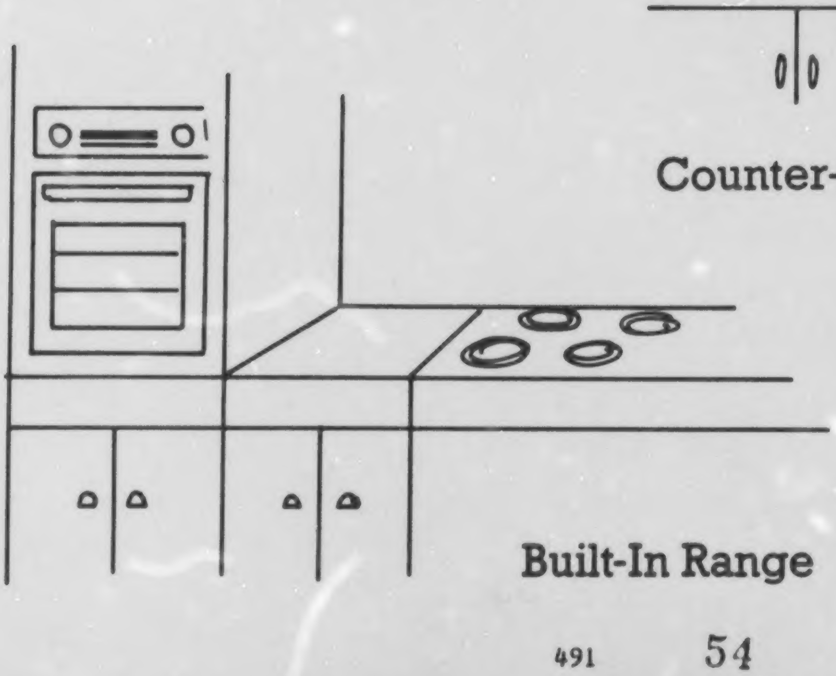
Double-Oven Range



Free-Standing Range



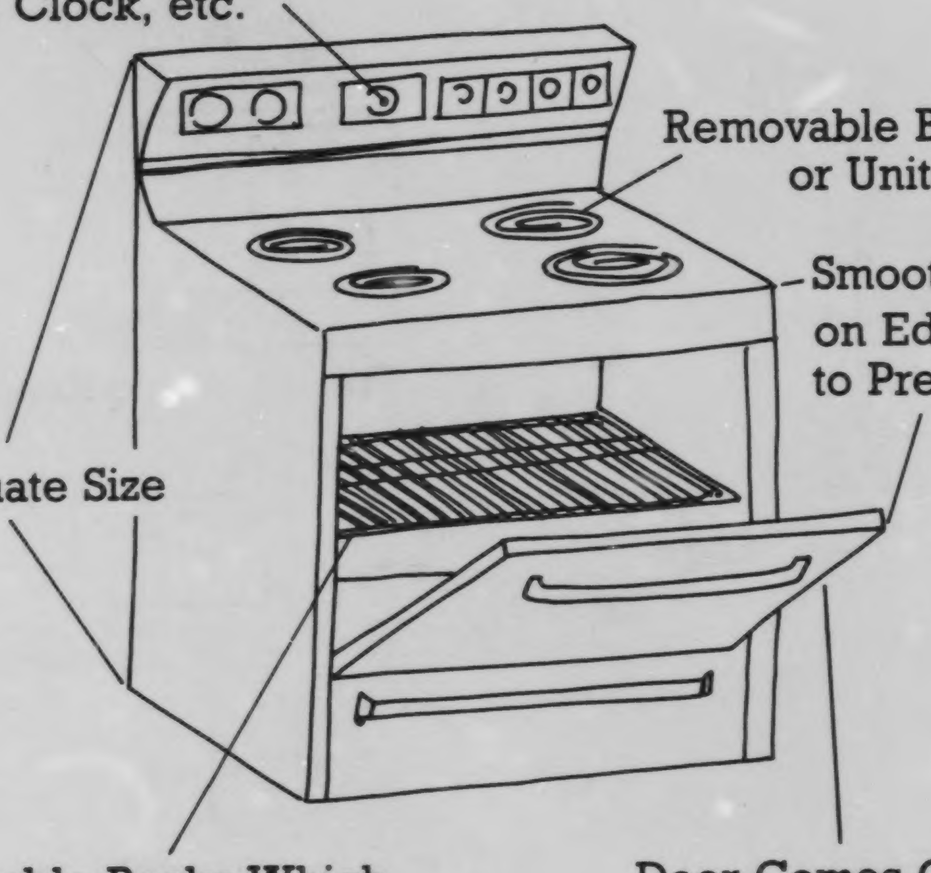
Counter-Model Oven



Built-In Range

TM 4

Range Features



Automatic Controls
Timer, Clock, etc.

Removable Burners
or Units

Smooth Finish
on Edges
to Prevent Cuts

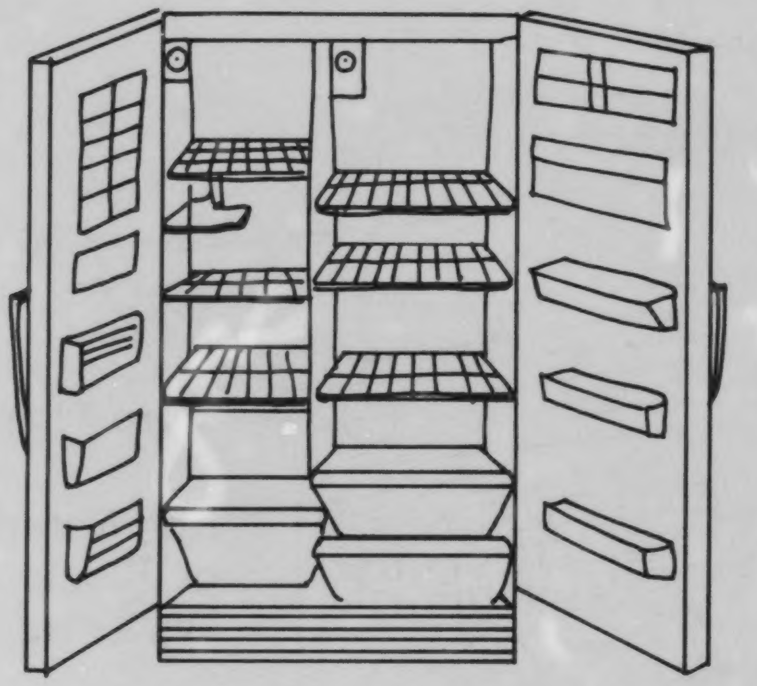
Adequate Size

Removable Racks Which
Slide Easily/Lock-Stop

Door Comes Off
For Cleaning

UL or AGA Approved

What to Look for in a Refrigerator



Separate Freezer/Refrigerator Controls

Automatic Defrost

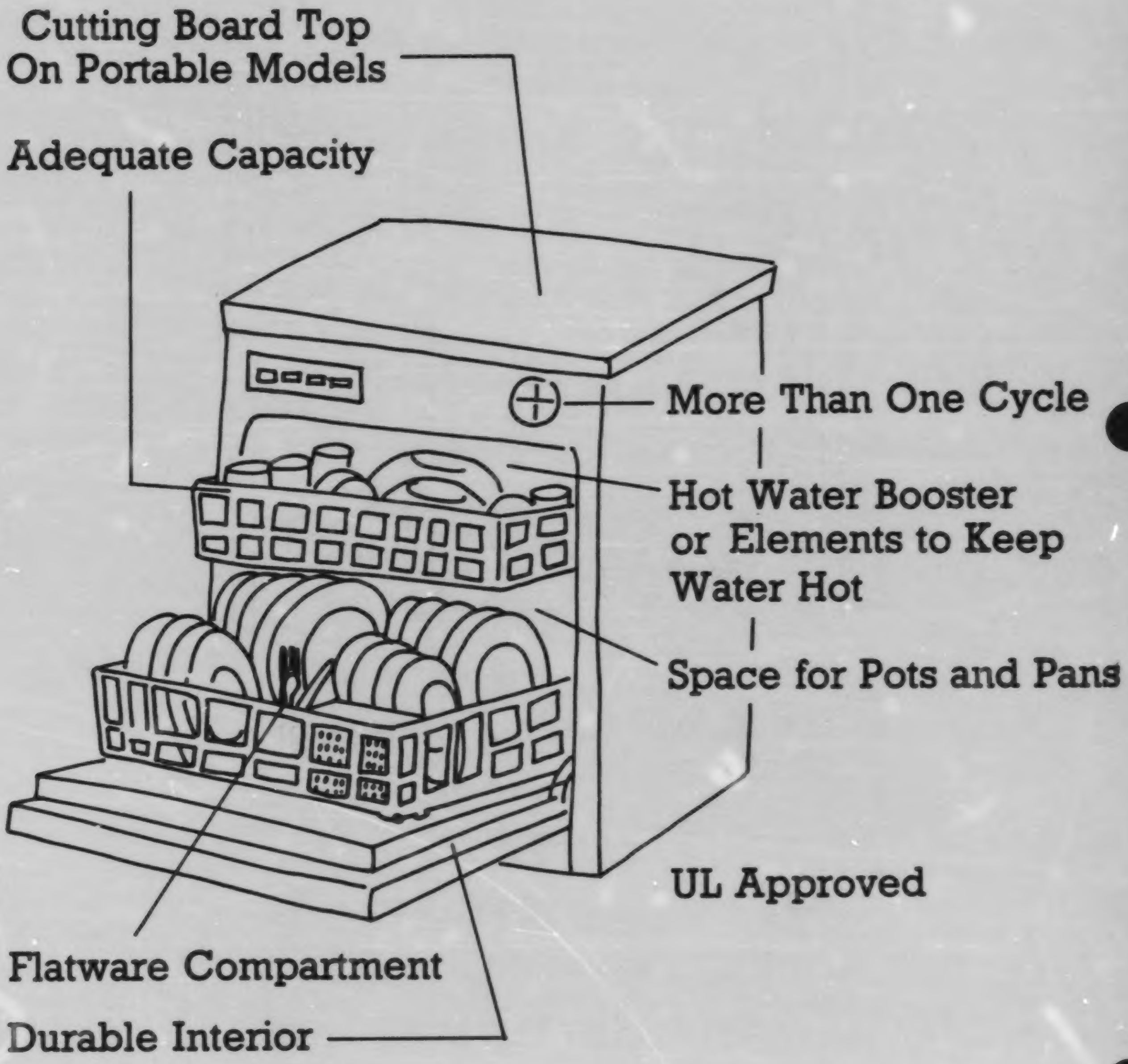
Adjustable Shelves

Fruit and Vegetable Storage Compartments

Adequate Capacity

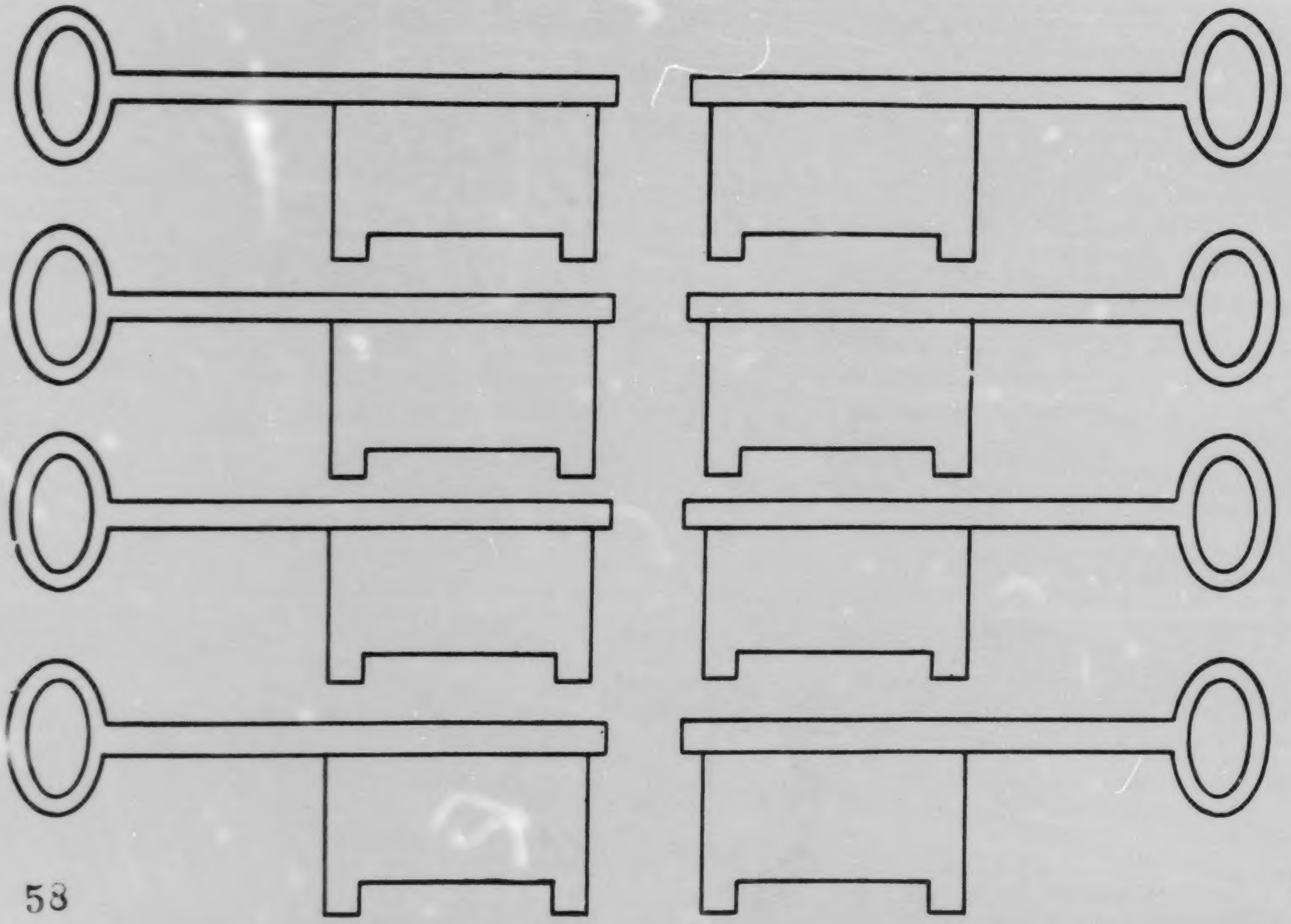
UL Approved

Dishwasher Selection


Cutting Board Top On Portable Models
Adequate Capacity
More Than One Cycle
Hot Water Booster or Elements to Keep Water Hot
Space for Pots and Pans
UL Approved
Flatware Compartment
Durable Interior

Keys to Success

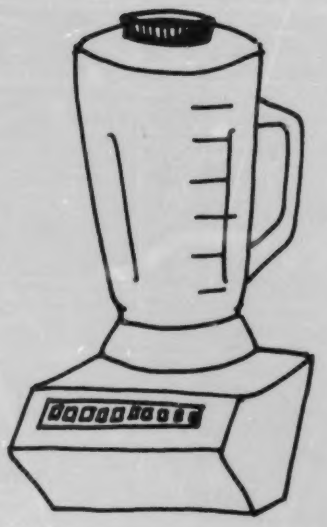
In Buying Kitchen Appliances

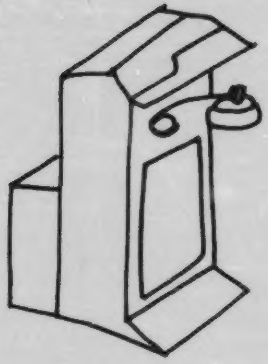


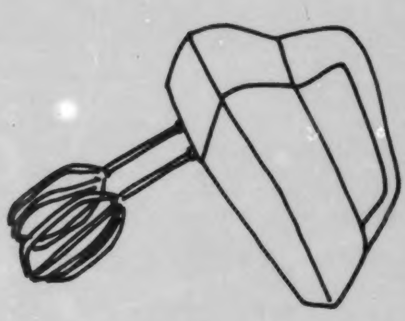
TM 7

495

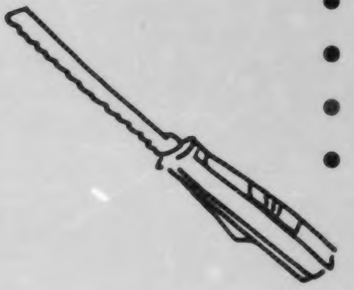
What to Look for in Portable Appliances

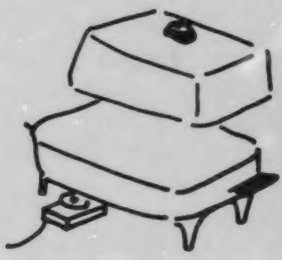


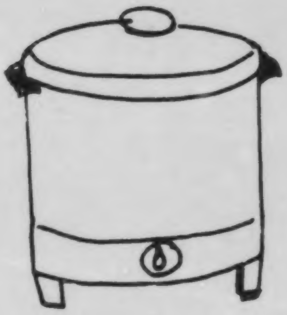


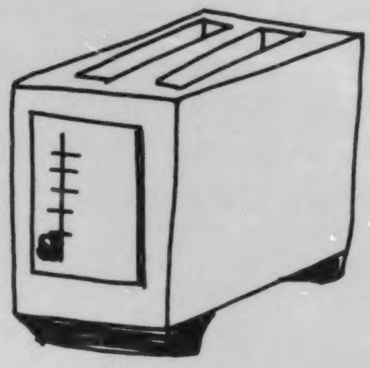


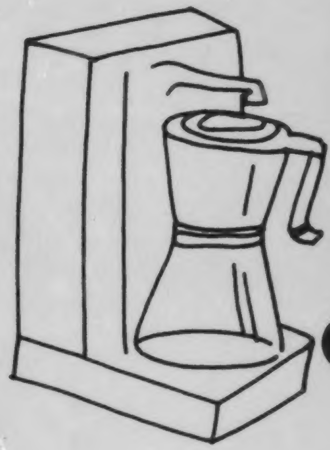
- Parts Easy to Assemble
- UL Approved
- Easy-To-Operate Controls
- Heat-Resistant Handles
- Well-Balanced
- Easy to Clean
- Built-In Safety Features





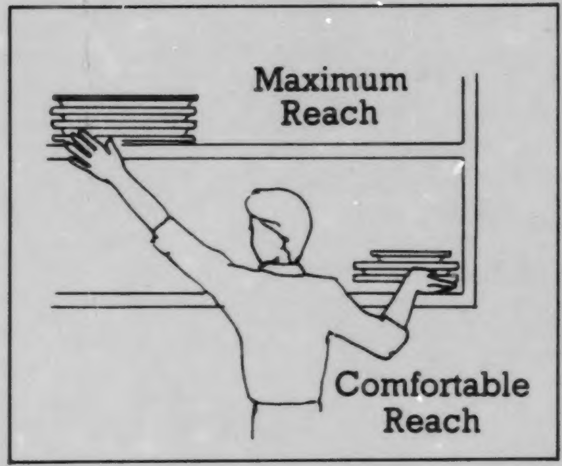


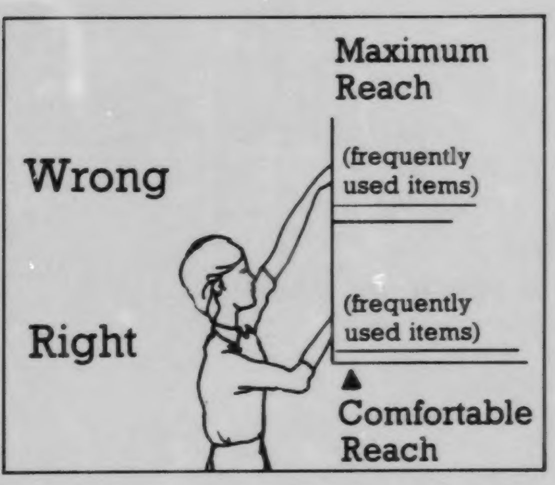


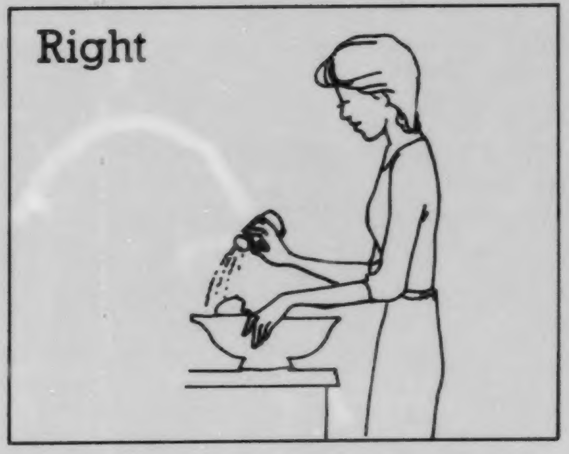


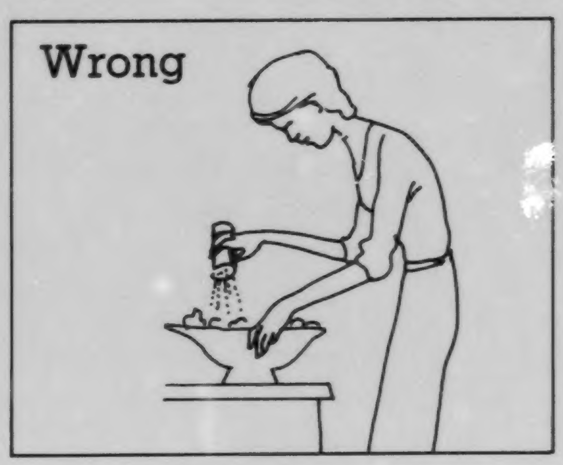
TM 9

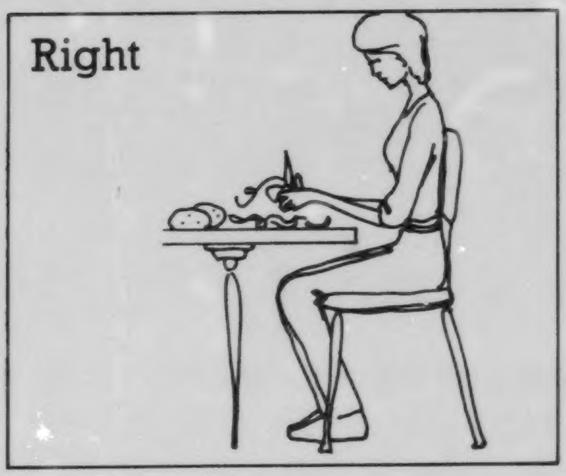
Proper Work Habits

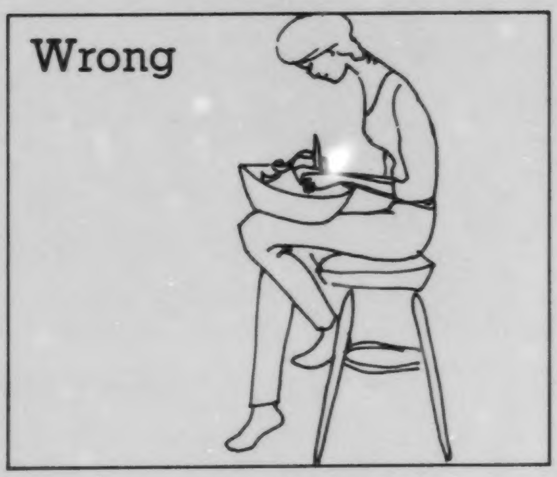

Maximum Reach
Comfortable Reach


Maximum Reach
Wrong
(frequently used items)
Right
(frequently used items)
Comfortable Reach



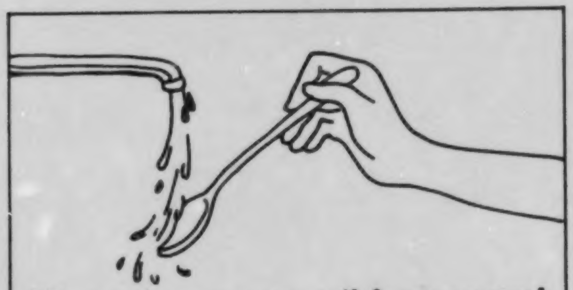




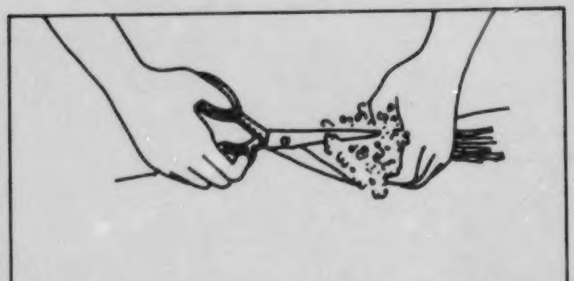


TM 10

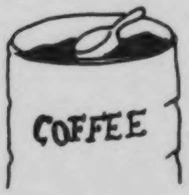
Shortcuts in the Kitchen



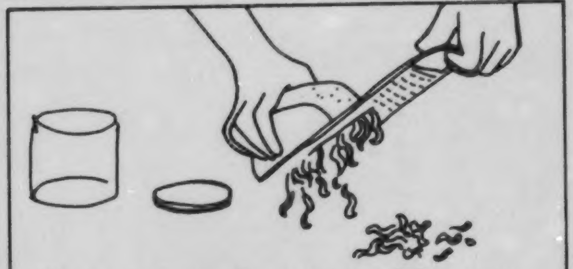
Use only one utensil for general tasks, rinsing after each use.



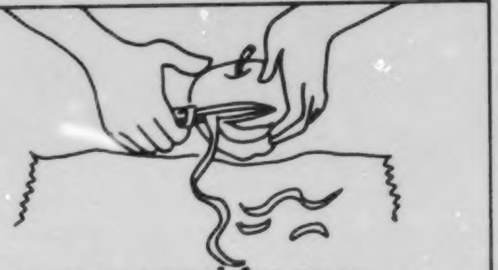
Use kitchen shears to cut herbs



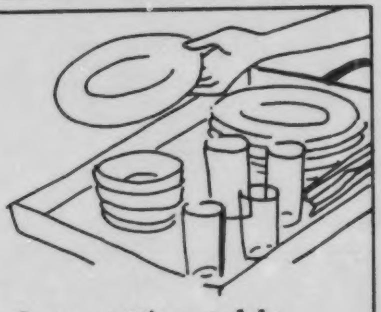
Keep small utensils near food with which it will be used



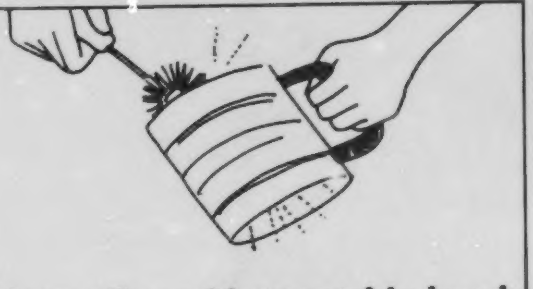
Grate extra cheese and keep it in a jar



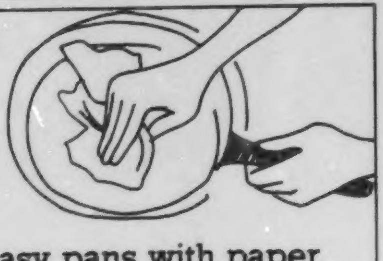
Use paper towel for easy clean-up



Use tray when setting table



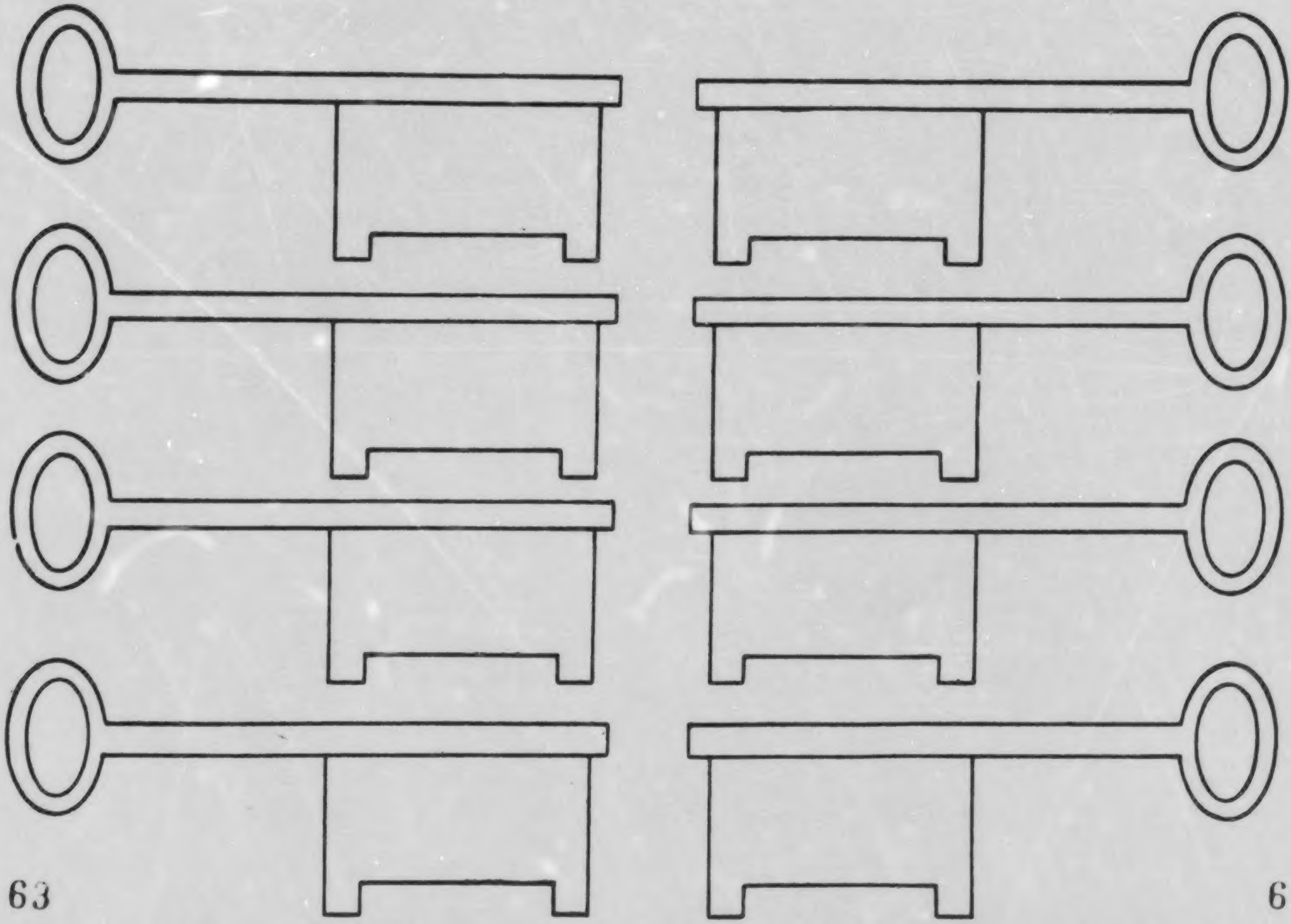
Clean sifter with vegetable brush



Wipe greasy pans with paper towel before washing

Keys to Success

In Saving Time and Energy



499

TM 11

UNIT VI: TIME ENERGY AND RESOURCE MANAGEMENT

ASSIGNMENT SHEET #1: PLANNING A KITCHEN

Directions: Find a picture in a magazine of a kitchen you would like to have (the picture will probably only show 1 or 2 walls). Using this picture as a basis, draw a complete plan of a layout for the whole kitchen. Use the graph paper, templates and construction symbols provided. Include all appliances, cabinets, furniture, outlets and lights, overall dimensions, direction of door swings (including refrigerator) and draw in the work triangle with measurements. Be sure to use the scale ⅛" = 1 ft. If you need help with drawing the plan, consult your instructor. Complete the form below and turn in with plan. Your plan should look similar to the one on the kitchen plan handouts.

I. Picture of my kitchen (attach here):

II. The type of my plan is ________________________________(U-shape, L-shape, corridor, one-wall)

III. My plan ____________________________ (does, does not) have an island.

IV. My plan ____________________________ (does, does not) have a peninsula.

V. My plan is for a ________________________________ (house, apartment, mobile home).

VI. The size of the work triangle in my house is ______________________.

VII. The features my plan has that we do not currently have in our kitchen at home include:

VIII. The part of my kitchen plan I like best is:

IX. A general description of my kitchen's decoration and reasons why each was chosen (include colors, type of floor, walls, and cabinet coverings, etc. Also include any design changes you have made from your original magazine picture.)

Optional

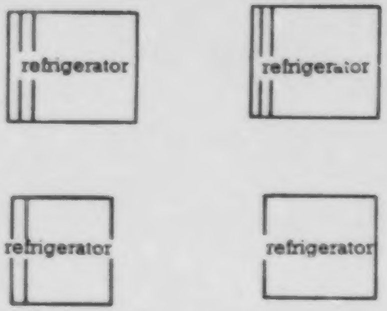
X. Additional pictures of features of my kitchen (attach picture of appliances, storage, etc. not shown on original picture)

Kitchen Planning and Storage Template

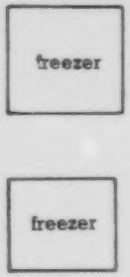
Scale: ¼"equals 1' 0"

Directions: Cut out items below and use on your plan. If an item you need is not shown, draw it yourself, keeping it to scale.

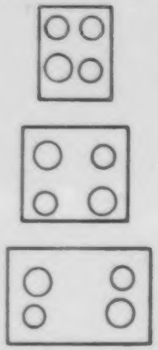
Refrigerators


refrigerator
refrigerator
refrigerator
refrigerator

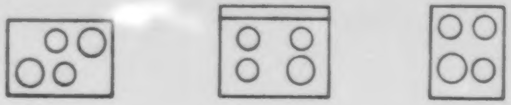
Upright Freezers


freezer
freezer

Range Tops



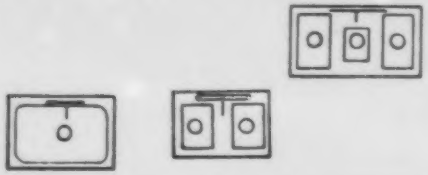
Built-in Ranges



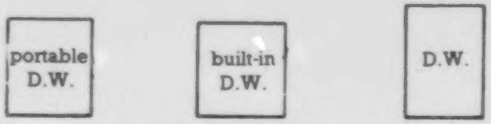
Built-in Ovens

Trash Compactor

Sinks



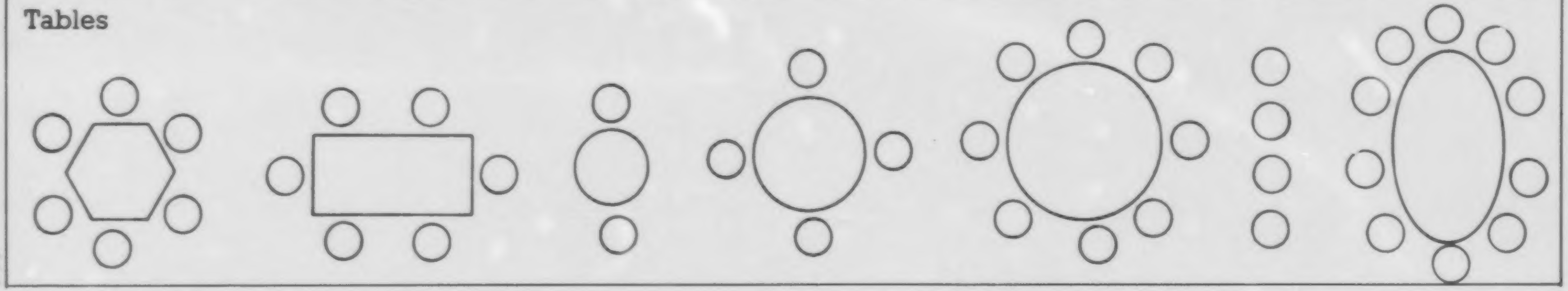
Dishwashers


portable D.W.
built-in D.W.
D.W.

Home Laundry

washer
dryer

Tables

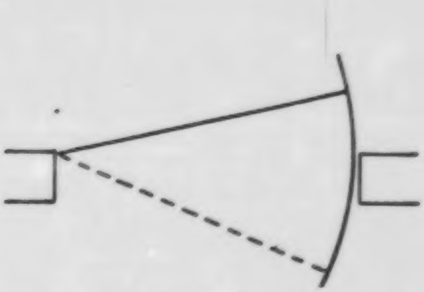


AS 1 (cont'd)

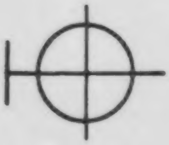
505

AS 1 (cont'd)

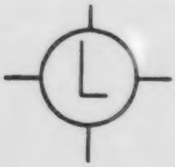
Architectural and Construction Symbols



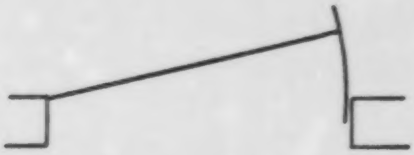
swinging door



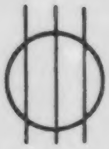
wall light



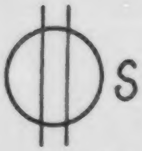
ceiling light



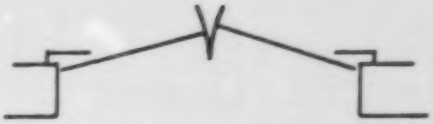
regular door



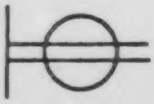
220v range
outlet



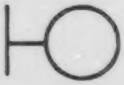
outlet-switch
combination



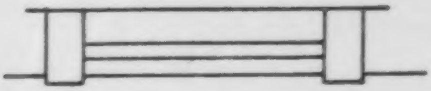
casement window



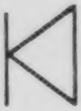
duplex outlet



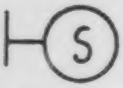
special purpose
outlet



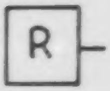
double-hung
window



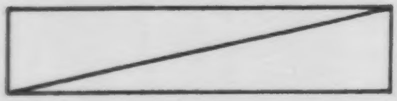
telephone



wall switch



gas range
connection



radiator

KITCHEN PLAN EVALUATION SHEET (AS 1)

		Points Possible	Points Received
1.	Appropriate picture included	5	
2.	Kitchen type is properly identified and coordinates with original picture	5	
3.	Form (questions are completely and appropriately answered)	15	
4.	Plan is well done		
a.	Neatly drawn	5	
b.	Dimensions given	5	
c.	Work triangle drawn and measured	5	
d.	Work triangle is between 12' and 22' in size	5	
e.	Symbols are appropriately drawn	5	
f.	Lighting is appropriate (overhead and at each center)	5	
g.	Eating area is in kitchen or conveniently close	5	
h.	Back entrance is in kitchen or conveniently close	5	
i.	Window(s) are included (preferably above sink)	5	
j.	Outlets are spaced every 4 ft. (Counter Space)	5	
k.	Traffic flow does not pass through work triangle	5	
l.	Cabinets are continuous between appliances	5	
m.	No empty or "dead" space	5	
n.	Doors (including refrigerator) swing proper direction and open conveniently	5	
o.	Good choice of color, floor, wall, cabinet design	5	
TOTALS:		100	

+ Bonus points for optional pictures:

UNIT VI: TIME, ENERGY AND RESOURCE MANAGEMENT

JOB SHEET 1: COMPARING CONVENTIONAL, MICROWAVE, AND CONVECTION COOKING

Directions: Depending on number of microwave ovens in the department or the amount of class time available, compare the conventional range with the microwave for preparing one or all of the products below. If you have access to a convection oven also compare its use. Record your findings on the attached form. If possible, divide class into 4 groups, each making one product below.

Product A: Bacon

Conventional	**Microwave**	**Convection**
Supplies and Equipment:		
3 slices bacon (or more) 1 skillet paper towels	3 slices bacon (or more) 1 microwave bacon rack or paper plate and paper towels wax paper	3 slices bacon (or more) 1 broiler pan with rack
Procedure:		
1. Place bacon in skillet.	Place bacon on rack or paper towel lined paper plate.	Place bacon on broiler pan.
2. Turn on medium high temperature.	Cover with wax paper.	Bake in oven until crisp. (see oven directions)
3. Turn bacon frequently until brown and crisp.	Place in oven on high approximately one minute per slice (depends on thickness).	Drain on paper towel.

Product B: Biscuits

Conventional	Microwave	Convection
Supplies and Equipment:		
1 c biscuit mix 1/3 c milk pastry board rolling pin biscuit cutter spoon baking sheet measuring cup	1 c biscuit mix 1/3 c milk pastry board rolling pin biscuit cutter paper towels spoon measuring cup	biscuit mix milk pastry board rolling pin biscuit cutter paper towels spoon baking sheet measuring cup
Procedure:		
1. Mix 1 c baking mix and 1/3 c milk until soft dough forms; beat vigorously 30 sec. If dough is too sticky add more baking mix (up to 2 T).	Mix 1 c baking mix and 1/3 c milk until soft dough forms; beat vigorously 30 sec. If dough is too sticky add more bisquit mix (up to 2 T).	Steps 1-6 same as conventional
2. Turn onto board dusted with baking mix	Turn onto board dusted with baking mix.	
3. Knead 10 times.	Knead 10 times.	
4. Roll 1/2" thick	Roll 1/2" thick	
5. Cut with cutter.	Cut with cutter.	
6. Place about 1" apart on baking sheet	Place about 1" apart in circle on several thicknesses of paper towels.	
7. Bake at 450° F 8-10 minutes	Microwave on high until no longer doughy, 2 1/2 - 3 minutes.	Bake according to oven instructions.
8.	Cool in microwave 15 sec.	

Product C: Brownies

Conventional	Microwave	Convection
Supplies and Equipment:		
1 pk. Betty Crocker* brownie mix	1 pk. Betty Crocker* brownie mix	1 pk. Betty Crocker* brownie mix
1/4 cup oil	1/4 cup oil	1/4 cup oil
1 egg	1 egg	1 egg
1/2 c water	1/2 c water	1/2 c water
9 x 13" baking pan	2 microwave-safe dishes 8 x 8 x 1 1/2"	9 x 13" baking pan
wooden spoon	wooden spoon	wooden spoon
rubber spatula	rubber spatula	rubber spatula
measuring cup	measuring cup	measuring cup
knife	knife	knife
turner	turner	turner
Procedure:		
1. Combine all ingredients.	Combine all ingredients.	Combine all ingredients.
2. Mix with a spoon.	Mix with a spoon.	Mix with a spoon.
3. Place dough in 9 x 13" baking pan	Divide dough evenly between 2 ungreased microwave proof dishes, 8 x 8 x 1 1/2"	Place dough in 9 x 13" baking pan.
4. Bake 28-31 min. at 350°	Cook in microwave uncovered on high, 1 dish at a time for 2 minutes.	Bake according to manufacturer's directions (25° - 50° lower than suggested temperature on package).
5. Cool.	Turn dish 1/4 turn	Cool.
6. Cut.	Microwave until brownies are evenly puffed and almost dry on top (2 1/2 - 3 1/2 Min) Cool. Cut.	Cut.

* If using another brand, adjust ingredients according to package instructions.

Product D: Baked Potato

Conventional	Microwave	Convection
Supplies and Equipment:		
1 med. large potato	1 med. large potato	1 med. large potato
oil	oil	oil
	fork	
	napkin or paper towel	
Procedure:		
1. Wash potato.	Wash potato.	Wash potato.
2. Rub with oil.	Rub with oil.	Rub with oil.
3. Bake in oven at 400° for 1 hour.	Puncture with fork.	Bake in oven according to manufacturer's directions.
4.	Place on napkin and microwave on high for 2 minutes.	
5.	Rotate potato.	
6.	Bake 2 more minutes or until fork tender.	

What's the Difference?

A comparison of conventional, microwave, and convection cooking

Use this chart to sum up the important facts about the differences between cooking with a conventional range, microwave oven, and convection oven.

FOOD USED: ______	CONVENTIONAL OVEN	MICROWAVE OVEN	CONVECTION OVEN
1. Type of heat used to cook			
2. Amount of cooking time required			
3. Equipment needed for cooking			
4. Color of food			
5. Texture of food			
6. Flavor of food			
Conclusions:			

JS 1 (cont'd)

515

JOB SHEET 2: APPLIANCE DEMONSTRATION

Directions: Working individually or in pairs, demonstrate to the class a portable electrical appliance (of your choice or assigned by the instructor) from your home economics department or from home. Use the manufacturer's manual, information sheet, and text books for specific information. Follow the steps below.

I. Show and give name of appliance (could show several different brands).

II. Explain all parts and functions of appliances.

III. Explain advantages and disadvantages of the appliance (or particular brand) (why buy or not buy).

IV. Explain safety requirements.

V. Explain care and storage of appliance.

VI. Give approximate price range.

VII. Demonstrate the actual use(s) of the appliance by preparing small samples of food or performing simple jobs using the appliances (Keep in mind the time allotment).

(NOTE: Much of the information in steps 1-6 could be given while showing use.)

VIII. Follow good demonstration techniques, staying within the specified time allotment (probably 15-30 minutes but check with instructor).

JS 2 (Cont.)

APPLIANCE DEMONSTRATION

Evaluation Sheet

		Points Possible	Points Received
Content: (60)			
I.	Showed and gave name of appliance	5	
II.	Explained all parts and functions of appliance	10	
III.	Explained advantages and disadvantages of appliance	10	
IV.	Explained safety requirements	10	
V.	Explained care and storage of appliance	10	
VI.	Gave approximate price range	5	
VII.	Correctly demonstrated actual use(s) of appliance	10	
Techniques: (40)			
VIII.	Followed good demonstration techniques		
	Gained interest of audience	2	
	Spoke clearly and slowly, at correct sound level	3	
	Showed confidence and poise	3	
	Organized information well	5	
	Demonstration area was neat, easy to see, with all items ready as needed	5	
	Used good eye contact (did not read)	2	
	Used proper cooking techniques	5	
	Knew subject	5	
	Summarized well	3	
	Asked for questions	2	
	Stayed within time frame	5	
IX.	**BONUS:**		
	Showed more than one brand	1-10 bonus	
	Demonstrated more than one use	1-10 bonus	
TOTALS:		**100+ possible**	**_____ received**

COMMENTS:

80

JOB SHEET 3: WORK SIMPLIFICATION EXPERIMENTS

Directions: Time selected individuals performing the following tasks and analyze time and energy-saving methods.

Task A: Setting and clearing the table
Supplies and Equipment:

Watch (stop watch or watch with second hand)
pencil and paper
tray
4 salad plates (preferably plastic)
4 plates (preferably plastic)
4 saucers (preferably plastic)
4 cups (preferably plastic)
4 glasses (preferably plastic)
4 knives
4 forks
4 spoons
4 napkins
salt and pepper shakers
sugar and creamer
table

Procedure:

1. Appoint the following: a timekeeper, Student #1, Student #2 (All other Students are to count trips and record information.)

2. Student #1 is timed as he/she removes the above items from the drawer and cabinet, shuts cabinet and drawer and sets a table: (placed at least 10 ft from cabinet) in correct order for 4 people, carrying items in hands. Time and numbers of trips to cabinet and around table are recorded.

3. Student #2 is timed as he/she clears the table, placing items back in cabinet and drawer in orderly fashion, carrying items in hands.

4. Student #1 is again timed using a tray and setting the table as in step 1.

5. Student #2 is again timed using a tray and removing dishes from the table and putting away.

(**NOTE:** Task A might be repeated by a number of students in class so that each student might have a chance to "beat the time" by working more efficiently than the previous student.)

Record: **Task A**

1. Time setting the table without tray ______

   Number of trips from cabinet to table ______

   Number of trips around table (halfway around will count as a trip) ______

2. Time clearing table without tray ______

   Number of trips from table to cabinet ______

   Number of trips around table (halfway around will count as a trip) ______

3. Time setting the table with a tray ______

   Number of trips from cabinet to table ______

   Number of trips around table (halfway around will count as a trip) ______

4. Time clearing table with tray ______

   Number of trips from table to cabinet ______

   Number of trips around table (halfway around will count as a trip) ______

In what ways were steps and time wasted (dropped items, etc.)?

What efficiency techniques did you observe?

Conclusion:

Task B - Assembling ingredients

Supplies and Equipment:

Watch (stopwatch or watch with second hand)
pencil and paper
tray or utility cart
flour
sugar
cocoa
baking powder
salt
shortening
coconut
milk
eggs
butter
paper towels

Procedure:

1. Appoint the following: a timekeeper, Student #3, Student #4. (All other students are to count trips and record information.)

2. Student #3 is timed as he/she gets ingredients from cabinets and refrigerator (closing doors) and assembles on a counter top at least 15 feet away without using a tray or cart. Time and number of trips are recorded.

3. Student #4 is timed as he/she puts ingredients back in proper places (closing doors) without using a tray or cart. Time and number of trips are recorded.

4. Student #3 is timed as he/she repeats step #1 using a tray or utility cart.

5. Student #4 is timed as he/she repeats step #2 using a tray or utility cart.

(NOTE: Task B might be repeated by a number of students in class so they can all test their efficiency.)

JS 3 (Cont.)

Record: Task B

1. Time assembling ingredients without tray ______
   Number of trips from cabinet to counter ______

2. Time returning ingredients without tray ______
   Number of trips from counter to cabinet ______

3. Time assembling ingredients with tray or cart ______
   Number of trips from cabinet to counter ______

4. Time returning ingredients with tray ______
   Number of trips from counter to cabinet ______

In what ways were steps and time wasted? (dropped, spilled items, etc.)

What efficiency techniques did you observe?

Conclusion:

JOB SHEET #3 EVALUATION

Completed to satisfaction of instructor.

General conclusion should be that use of tray and/or cart saves steps and time.

UNIT VI: TIME, ENERGY, AND RESOURCE MANAGEMENT

TEST

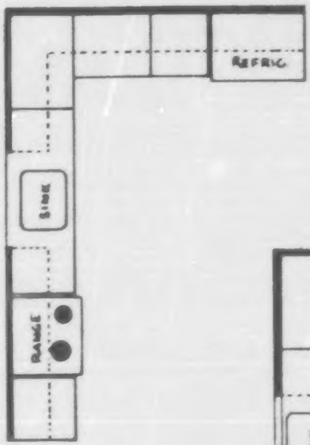
1. Match the terms at the right with correct definitions on the left by placing the numbers in the appropriate blank.

______	a.	Keeping two tasks going at the same time	1.	Work center
______	b.	An easy way of doing something	2.	Work triangle
______	c.	Indicates that electrical appliance has been tested for safety	3.	Underwriters Laboratories seal
______	d.	The place where each type of work is done	4.	AGA seal
______	e.	Seller's promise that a product will perform as specified	5.	Warranty
______	f.	The performance of tasks in the simplest way possible	6.	Shortcut
			7.	Dovetailing
			8.	Work simplification

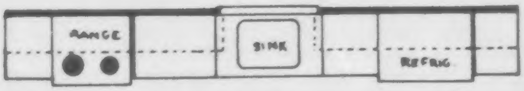
2. Describe the kitchen work centers
   a. Refrigerator
   b. Range
   c. Mixing
   d. Sink
   e. Eating
   f. Planning
   g. Laundry

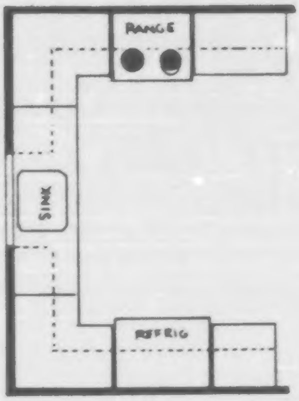
3. Label each of the kitchen floor plans below and draw the work triangle for each.

a. ______________________

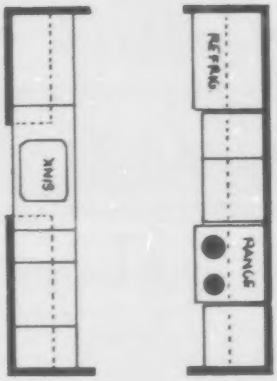

REFRIG
SINK
RANGE

b. ______________________

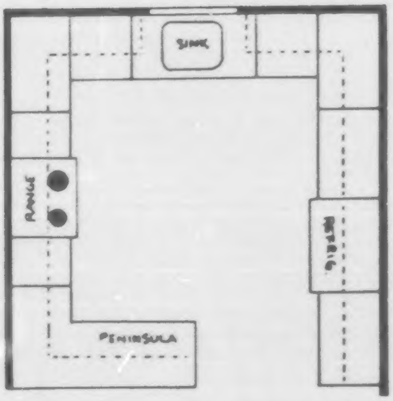

RANGE
SINK
REFRIG


RANGE
SINK
REFRIG

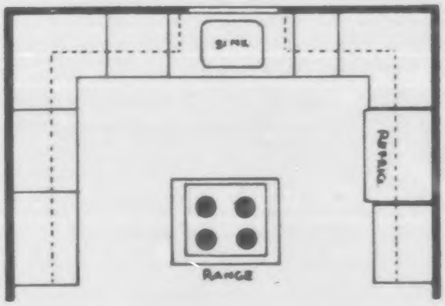
c. ______________________


REFRIG
SINK
RANGE

d. ______________________


SINK
RANGE
REFRIG
PENINSULA

e. ______________________


SINK
REFRIG
RANGE

f. ______________________

4. List materials for each of the following areas of the kitchen.

a. Counter tops

1)

2)

b. Floor Covering

1)

2)

3)

4)

c. Wall Coverings

1)

2)

3)

4)

5)

5. Describe characteristics of kitchens for the handicapped (including at least 4 characteristics)

6. List 4 points to consider before buying appliances.

a.

b.

c.

d.

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7. List 10 buying practices to follow when buying appliances

a.

b.

c.

d.

e.

f.

g.

h.

i.

j.

8. List 2 features and 2 use and care procedures to look for when buying each of the following

Features	Use and Care
a. Range	
1.	1.
2.	2.
b. Microwave Oven	
1.	1.
2.	2.
c. Convection Oven	
1.	1.
2.	2.
d. Refrigerator	
1.	1.
2.	2.

Features	Use and Care
e. Freezers	
1.	1.
2.	2.
f. Dishwasher	
1.	1.
2.	2.
g. Food Waste Disposers	
1.	1.
2.	2.
h. Trash Compactor	
1.	1.
2.	2.

9. List 5 points to consider when buying portable appliances.

   a.

   b.

   c.

   d.

   e.

10. List 5 portable appliances demonstrated in class or listed in the information pages: Give one feature and one safety precaution for each.

   a.

   b.

   c.

   d.

   e.

11. List 5 use and care procedures for small appliances.

a.

b.

c.

d.

e.

12. List 3 kinds of used appliances.

a.

b.

c.

13. List 3 things to look for when buying used appliances.

a.

b.

c.

14. List 5 places to look for used appliances.

a.

b.

c.

d.

e.

15. List 3 rules for making a work and time schedule.

a.

b.

c.

16. List 4 practices to follow for good management of each of the following.

a) Organizing work area

1)

2)

3)

4)

b) Saving personal energy

1)

2)

3)

4)

c) Saving home energy

1)

2)

3)

4)

17. List 2 time-saving strategies and 2 examples of each.

a.

1.

2.

b.

1.

2.

18. List 3 alternatives to the use of time and energy.

a.

b.

c.

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UNIT VI: TIME, ENERGY, AND RESOURCE MANAGEMENT

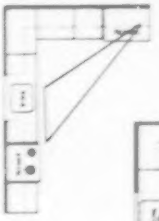
TEST KEY

1. a. 7
   b. 6
   c. 3
   d. 1
   e. 5
   f. 8

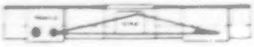
2. a. Refrigerator - Storage center where fresh and frozen foods are kept
   b. Range - range and cookware are located here, food preparation takes place here
   c. Sink - cleanup center with sink and all cleaning supplies
   d. Mixing - 36" of counter space for mixing foods
   e. Eating - (optional center) table or counter for informal eating
   f. Planning - (optional center) area for planning lists, menus, etc.
   g. Laundry - (optional center) contains washer, dryer and laundry supplies

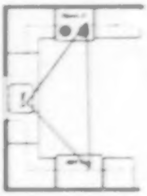
3.

L-shaped Layout

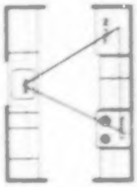


Straight-line Layout
(one wall)

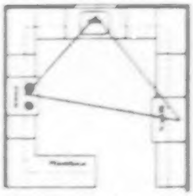




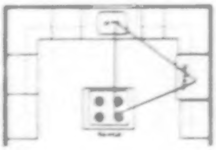
U-shaped Layout



Corridor Layout



Peninsula Layout



Island Layout

4.

a. 1) Laminated plastic
   2) Ceramic tile

b. 1) Vinyl-asbestos
   2) All vinyl
   3) Linoleum
   4) Kitchen carpeting

c. 1) Paint 4. Paneling
2) Wallpaper 5. Tile - ceramic, metal
3) Vinyl Wall Covering

5. Any 4 of these characteristics should be included.

a. An L- or U-shaped plan works best.
b. Counter tops can be lowered with some base cabinets removed.
c. Control switches should be located at cabinet fronts and low enough to reach.
d. Shelving should be open.
e. Small appliances can be substituted for surface units.

6. a. Need c. Space limitations
b. Family requirements d. Budget

7. Should list any 10 of buying practices a. - k. in Section II. B. 2. (p. 465).

8. Should list features and use and care procedures from Section II. B. 3. (p. 466).

9. List any 5 points from Section II. B. 4. a. (p. 472).

10. Answers will vary but should agree with information pages and demonstrations done in class.

11. List any 5 use and care procedures listed in 1-13 in Section II. B. 4. m.

12. a. Rebuilt
b. Reconditioned
c. "As is"

13. Any 3 should be listed

a. UL or AGA seal
b. Plug, cord, and wiring in good condition
c. Parts and finish in good condition
d. Cleanliness

14. a. Private house sales (classified ads)
b. Appliance or department stores
c. Secondhand stores
d. Independent repair shops
e. Household movers

15. a. Rotate duties
b. Prepare a step-by-step schedule
c. Be flexible

16. Should list items from Section II. C. 2., a-c (p. 481).

17. Should list items from Section II. D. 1. and 2. (p. 483).

18. a. Money
b. Knowledge, skills and abilities
c. Time itself

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

UNIT OBJECTIVE

After completion of this unit, the student should be able to select, care for, prepare, store and preserve foods from the basic food groups. This knowledge will be evidenced by scoring 85 percent on the assignment and job sheets and lesson tests.

NOTES TO THE INSTRUCTOR

A. This unit contains the following lessons:

1. Dairy Foods*
2. Fats and Oils
3. Cereals and Breads (Cereals*, Quick Breads*, Pastas and Yeast Breads)
4. Fruits and Vegetables
5. Meats, Eggs*, Poultry, Fish, and Legumes
6. "Others" - Pastries, Cakes, Frostings, and Candies
7. Food Preservation

B. Lesson tests are used in this guide. Should the instructor desire to use one unit test, this can be made by using one out of every five items from the lesson tests to compile one unit test.

C. Before using this unit, the instructor should have the students review Unit IV "Using a Recipe" and Unit V "Safety and Sanitation" from the Home Economics I - Basic Core guide.

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*These are covered in Home Economics I - Basic Core guide with objectives only listed in this guide.

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 1: Dairy Foods

(See Home Economics I - Basic Core)

LESSON OBJECTIVE

After completion of this lesson, the student should be able to prepare food using a dairy product. This knowledge will be evidenced through demonstration and by scoring 85 percent on the lesson test.

SPECIFIC OBJECTIVES

After completion of this lesson, the student should be able to:

Match terms associated with dairy foods to the correct definitions.

Select from a list main nutrients found in dairy foods.

Name two forms of cheese.

Select from a list principles of cheese cookery.

Name two general uses of milk.

State the goal of milk cookery.

Select from a list methods for successful milk cookery.

Match purchasable forms of milk to the correct descriptions.

Compare common cheeses.

Compare purchasable forms of milk.

Demonstrate the ability to:

a. Prepare white sauce.

b. Prepare macaroni and cheese.

NOTE: More advanced activities to include with a review of dairy foods for Intermediate foods include making frozen and whipped desserts and a variety of more difficult sauces for vegetables.

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 2: Fats and Oils

LESSON OBJECTIVE

After completion of this lesson the student should be able to select, prepare foods with, and properly store fats and oils. The knowledge will be evidenced through completion of assignment and job sheets and by scoring 85 percent on the lesson test.

SPECIFIC OBJECTIVES

1. Match terms associated with fats and oils to correct definitions.
2. Describe contributions of fats and oils to the diet.
3. List and describe the various types of fats and oils.
4. List general guidelines to follow in buying fats and oils.
5. Identify and give an example of the five functions of fats and oils in cooking.
6. Compare and evaluate the use of the various types of fats and oils for particular functions.
7. Demonstrate the proper use of fats and oils.
8. Identify guidelines to follow when storing fats and oils.

NOTE: Fats and Oils is a separate lesson so that the instructor may use it when desired. Since fats and oils are used in breads, salads, desserts, etc., the instructor may want to teach this lesson prior to the others or integrate it into other lessons as necessary.

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 2: Fats and Oils

SUGGESTED ACTIVITIES

I. Suggested Activities for Instructor

A. Order films, filmstrips, pamphlets, etc. to supplement lesson.

B. Provide students with objective sheet.

C. Provide students with information and assignment sheets.

D. Discuss lesson and specific objectives.

E. Discuss information and assignment sheets.

F. Adapt material for special needs students..

G. Determine time allotment for lesson and decide whether assignments will be at-home assignments or in-class, which job sheets to use and whether to use one or all of the review sheets depending on class and laboratory time.

H. Give test.

(NOTE: Not all objectives are evaluated on test. Some objectives are evaluated only by assignment and job sheets. If you feel more thorough evaluation is needed, you will need to add additional questions to the test.).

I. Reteach, if necessary.

INSTRUCTIONAL MATERIALS

I. Included in this lesson

A. Objective sheet

B. Information sheets

C. Transparency masters

1. TM 1: Types of Fats and Oils
2. TM 2: Sources of Non-animal Fats and Oils
3. TM 3: Deep-Frying Equipment

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D. Assignment sheets

   1. AS 1: Identifying Fats and Oils and Their Functions
   2. AS 2: Fats and Oils Crossword Puzzle

E. Answers to assignment sheets

F. Job sheets
   1. JS 1: Comparison of Fats and Oils
      Part A: Frying
      Part B: Baking
   2. JS 2: Using Fats and Oils in Emulsion
      Part A: French Dressing
      Part B: Mayonnaise
   3. JS 3: Using Fats and Oils Properly
      Part A: Spicy Cake Doughnuts
      Part B: Apple Fritters

G. Answers to job sheets

H. Test

I. Answers to test

II. References

A. Medved, E. The World of Food. Lexington, MA: Ginn and Company, 1981.

B. Ohl, S., et al. Guide to Modern Meals. McGraw-Hill Book Co., New York, 1981.

C. White, R. Food and Your Future. Englewood Cliffs, NJ: Prentice-Hall Books, 1979.

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 2: Fats and Oils

NOTES TO THE INSTRUCTOR

1. Obtain samples of the various types of fats to show during discussion.

2. Have students visit a grocery store and list types, brands, specific ingredients, and prices of fats and oils. Compare in class.

3. If more than 3-4 groups are desired for Job Sheet #1, have other groups compare brands of oil and shortening.

4. Check with local school cafeterias to see if they have government issued fats and oils which can be used in the home economics departments.

5. If time or budget are, limited part A or B could be omitted in Job Sheet 1, or if time is available, each part could be done on separate days.

6. Job Sheet #2 may be used as a teacher or student demonstration to save time and money.

7. Decide which procedures to follow for Job Sheet 3. Part A requires two laboratory periods and Part B requires one laboratory period. If time is very limited, refrigerated biscuits could be substituted for doughnuts. Use the center of a doughnut cutter to cut hole in center. Roll in sugar after frying. Also, the instructor may want to use this laboratory experience as a review in the Breads and Cereals lesson.

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Bulletin Board Idea

FATS AND OILS

Satisfy Hunger

Maintain Body Temperature

Provide Essential Fatty Acids

Aid in Normal Elimination

Protect Vital Organs

Provide Reserve Energy

Carry Vitamins A, D, E, K

Provide Cholesterol

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 2: Fats and Oils

INFORMATION SHEETS

I. Terms and definitions

A. **Fat** - usually refers to a fat that is solid at room temperature, although it is correct to use the term for either the solid or liquid form

B. **Saturated fats** - fats which contain fatty acids with no missing hydrogen atoms; usually solid at room temperature

C. **Unsaturated fats** - fats which have some missing hydrogen atoms

D. **Polyunsaturated fats** - fats which contain fatty acids with several hydrogen atoms missing; usually liquid at room temperature

E. **Rendering** - method used to separate fat from tissues of a hog

F. **Hydrogenated fat** - shortening; oils which have been made solid at room temperature by adding hydrogen

G. **Lard** - soft fat from a hog

H. **Rancid** - having an unpleasant, strong flavor such as that which develops in fats

I. **Butter** - a white emulsion of fat churned from cream; salt and color may be added

J. **Suet** - beef fat

K. **Smoking point** - temperature at which a fat begins to give off fumes or smoke

L. **Oils** - fats which are liquid at room temperature

M. **Sweet butter** - butter which is unsalted

N. **Margarine** - man-made alternate for butter made by hydrogenating oils, then adding coloring, flavoring, and Vitamin A

O. **Shortening** - hydrogenated vegetable oil; usually without added color, vitamin A or flavoring

P. **Cholesterol** - a fatlike waxy substance found in animal fats

II. Contribution of fats and oils to the diet

(NOTE: According to nutritionists, fats should supply less than 35% of daily calories. Most people in the U.S. tend to eat more than this. As a rule, as long as a balanced diet is eaten from the basic food groups, the individual is probably getting enough fat and cholesterol.)

A. Provide concentrated source of energy; 2¼ times as much energy as carbohydrates and protein

B. Provide satiety value. Because fat takes longer to digest, it delays hunger. (Therefore, eating fat in some amount can actually help control weight.)

C. Help keep body temperature constant

D. Chief source of essential fatty acids needed to prevent skin diseases such as eczema, and to keep complexion and hair attractive and healthy

E. Necessary for the absorption of vitamins A, D, E, and K.

F. Layers of fat protect nerves, internal organs, and all parts of the body.

G. Fats such as butter and margarine are concentrated sources of vitamin A.

H. Provide cholesterol, necessary for the body in certain amounts. High levels of cholesterol, however, are believed to increase the risk of circulation problems and heart disease (saturated fats increase cholesterol level). Scientists also say that an excess of unsaturated fats can cause damage to the body tissues. The best safeguard is to eat a balance of saturated and unsaturated fats.

I. Help in normal elimination

III. Selecting and buying

A. Types (TM 1) (JS 1)

1. Vegetable shortening (hydrogenated)

a. Soft, bland, unsalted fats (varieties may be available with butter flavoring)

b. Made from safflower, cottonseed, peanut and soybean oils; some are a blend of both animal and vegetable fats

c. Relatively inexpensive

d. High smoking/burning point

e. Good for baking, panfrying, sauteing and deep-fat frying

f. Whipped varieties have air added and are fluffier.

2. Lard - the soft fat from a hog

   a. Quality depends on what the hog was fed and the part of the animal from which the lard was taken.

   b. Most lard sold today is called BLAND lard because it is deodorized, decolorized and steam-rendered; other lard tends to become rancid as it gets older.

   c. Lard has more tenderizing ability than hydrogenated shortening and is therefore preferred by some people for baked products.

   d. Lard may be less expensive than other shortenings.

   e. Lard that is shipped between states, like all other animal products, must be government inspected.

   f. Used in baking and frying

3. Butter - made by churning pasteurized cream; must contain 80% butterfat

   a. Popularly used at the table

   b. Used as a spread and seasoning for vegetables

   c. Used for flavor and tenderness in baked products and for frying; relatively expensive to use; has a lower burning point than other shortenings

   d. Must be government inspected

   e. High quality butter has fresh odor and taste, salt distributed uniformly, smooth, waxy texture, and even spreading qualities.

   f. Also sold unsalted (sweet butter) and whipped

4. Margarine - made from a mixture of fat (usually vegetable oils), water, and artificial coloring and flavoring; must contain 80% fat by law

   a. Tastes more like butter than other fats

   b. Used for same purposes as butter

   c. Much less expensive than butter

   d. Sold in whipped, soft, liquid, and diet forms, in addition to the regular solid form

      (NOTE: In whipped forms there is less weight per volume so the measurement must be increased when following a recipe.)

5. Other fats

   a. Beef fat (suet) - used in plum pudding and mincemeat

   b. Meat (bacon) drippings - added to vegetables for seasoning

   c. Salt pork - added to dishes such as baked beans for flavor

   d. Peanut butter - contains 55 percent fat and is used in some baked products as part of the shortening

6. Vegetable oils (salad oils) (TM 2)

   a. Made from seeds and nuts such as soybeans, cottonseeds, corn, peanuts, safflower, and olives

   b. Vary in flavor with the product from which they are made - olive oil has the most flavor

   c. Vary widely in cost with the product from which they are made - olive oil is the most expensive

   d. All can be used for frying (except olive oil) since they can withstand high temperatures

   e. May be used in baked products when the recipe calls for an oil or melted fat; oils should not be substituted for solid fats in baked products

   f. Exposure to light shortens the shelf life of oils

B. General guidelines

   1. Buy the least expensive type of fat to suit the purpose.

   2. Whenever possible buy a fat that will serve more than one purpose.

   3. Read the labels carefully to determine type of fat and processing (whipped, mixture of animal and vegetable, etc.)

   4. Remember that whipped shortenings and margarines have air added and that more volume will be required of these than unwhipped types.

IV. Using fats and oils

A. Functions of fats and oils in cooking (AS 1)

1. To improve the flavor and texture of foods such as baked goods, seasoning of vegetables and salads, candies

2. To make baked goods tender, or "shorten" them

3. To keep foods from sticking to each other or to the pan when baking or frying

4. To transfer heat to the food when cooking, as in deep-fat frying

5. To hold the ingredients in salad dressings together (emulsion) (JS 2)

(NOTE: A fat may have more than one function in the same food product. For example, when deep-fat frying doughnuts, the fat transfers heat to the food to cook it, but also adds flavor and crispness.)

B. Guidelines for using fats and oils (TM 3) (JS 3)

1. Oils and vegetable shortenings are best for deep-fat frying because they have higher smoking points than lard, olive oil, butter, and margarine.

2. Fats may be reused if strained and stored properly.

3. The smoking point is lowered each time the fat is used.

4. Foods fried in oil will have a wetter, oilier appearance than those fried in solid or soft fats.

5. Foods that are cooked quickly, such as doughnuts, can be cooked at a higher temperature than foods that are cooked slowly, such as chicken.

6. Brown chicken in fat heated to a temperature just below the smoking point to prevent the absorption of fat. Then reduce the temperature to cook the food slowly when panfrying.

7. Use a fat thermometer or an electric fry pan to ensure the correct frying temperature.

8. When deep-fat frying, heat fat to the temperature listed in the recipe before adding the food.

9. Keep fat temperature even when deep-fat frying; when fat becomes too hot, the food turns brown and hard on outside but may not be done in the center; when fat is not hot enough, the food becomes soggy.

10. Drain fried foods on absorbent paper after frying.

11. Avoid getting water droplets or wet food in hot fat because it will spatter.

12. Use enough fat when deep-fat frying to surround the food, with room at the top for the fat to bubble over the food as it fries. Do not overcrowd.

13. Choosing a fat and temperature for deep-fat frying

    a. Temperature needed to cook

        1) Chicken - 350°F

        2) Doughnuts, fish, fritters, oysters, scallops, soft-shell crabs - 350° to 375°F

        3) Cauliflower, croquettes, eggplant, onions - 375°F

        4) French fried potatoes - 385° to 395°F

    b. Smoking points of common fats and oils - fry below this temperature

        1) Vegetable and animal fats with emulsifier - 351° to 363°F

        2) Vegetable and animal fats without emulsifier - 448°F

        3) Vegetable shortening with emulsifier - 356° to 370°F

        4) Lard - 361° to 401°F

        5) Vegetable oils - 441° to 450°F

V. Storage of fats and oils

A. Cover all containers tightly; exposure to air will cause the fat to become rancid.

B. Avoid exposing fats and oils to strong light.

C. Store vegetable oils and shortening in a cool, dry place at room temperature. Refrigerate if they are not to be used for long periods of time.

D. Lard, butter, and margarine should be kept covered in the refrigerator.

E. Butter and margarine wrapped in foil will keep in the freezer 6-9 months.

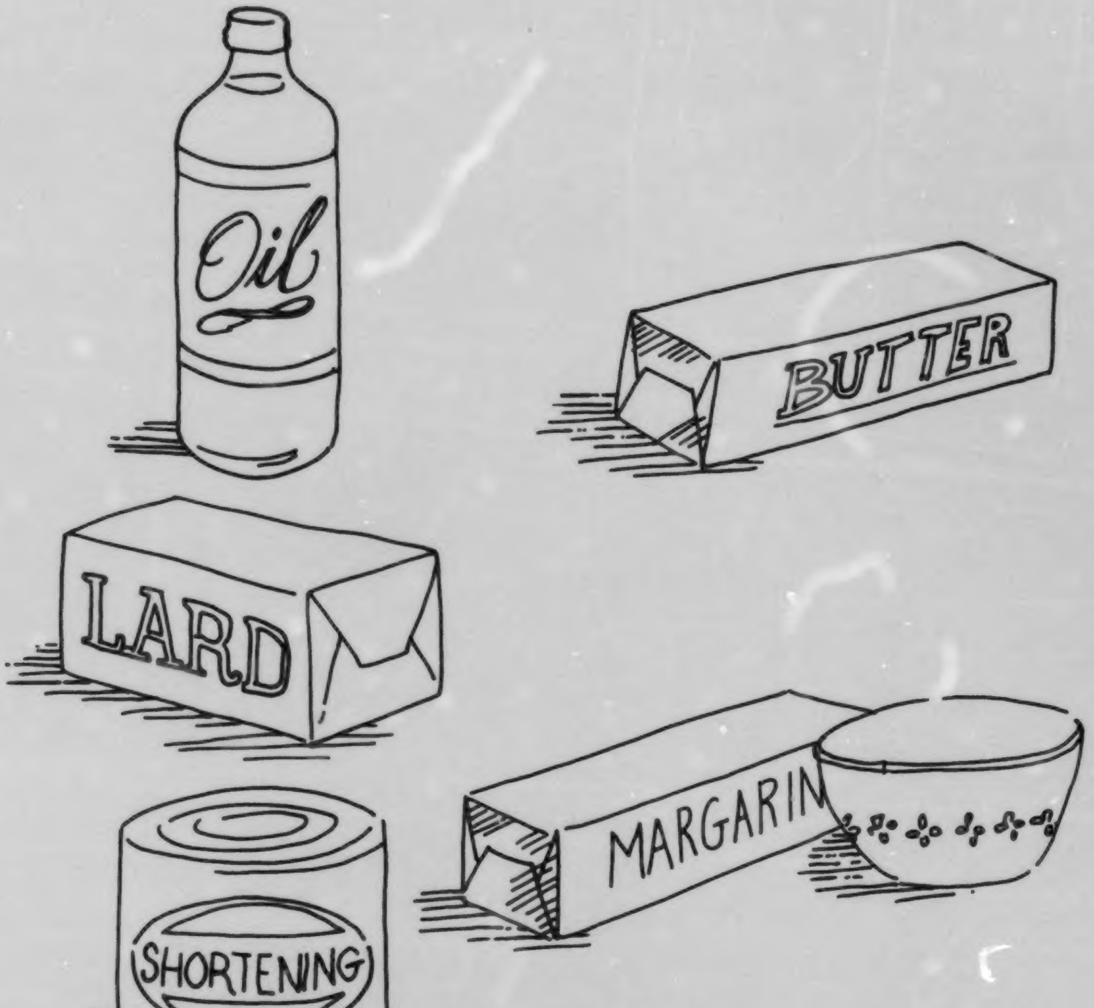
F. Strain fats and oils used for deep-fat frying after each use; store in closed container (labeled as to how used) in a cool, dry place; can reuse several times until fat starts to foam or darken when heated.

G. When reusing fats and oils for frying, avoid transfer of flavors by frying the same food in them each time. For example, do not fry doughnuts in grease which has been used for frying fish.

H. To prevent decomposition, avoid overheating the fat. (AS 2 - Review)

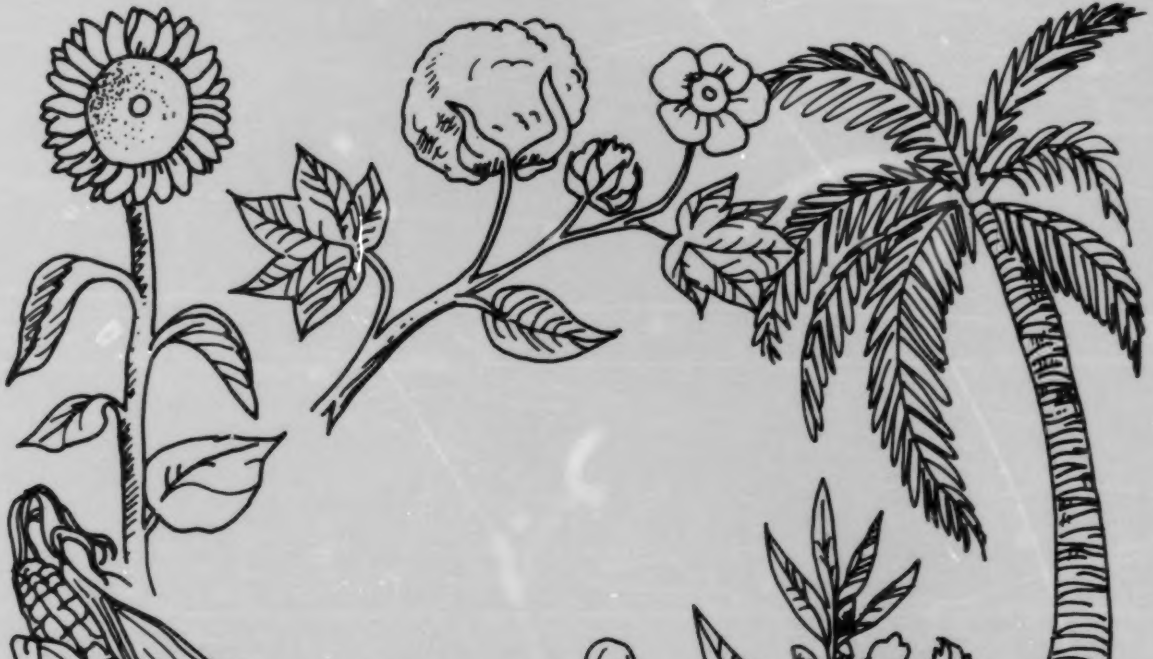
TM 1

Types of Fats and Oils


Oil
BUTTER
LARD
MARGARIN
SHORTENING

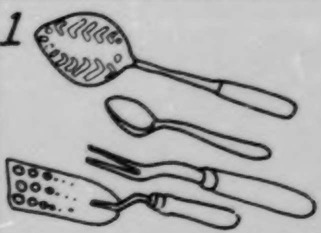
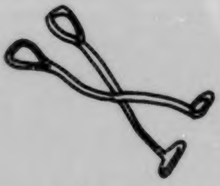
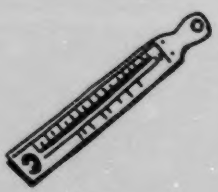
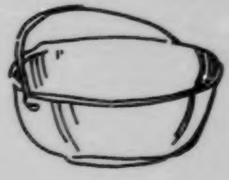
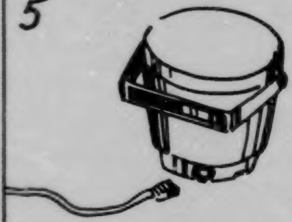
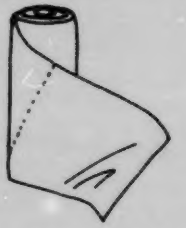
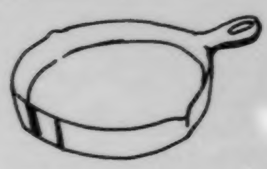
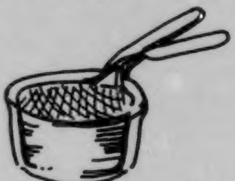
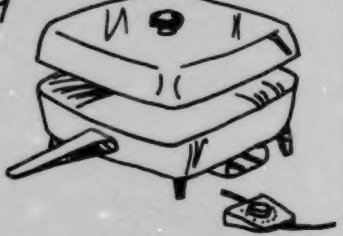
Sources of Non-Animal Fats and Oils

Margarine, oils, and shortening may be prepared from cottonseed, peanut, sunflower, sesame, corn, soybean, and safflower oils.



TM 3

Deep-Frying Equipment

1  Large spoons, slotted spoons, turners and forks for adding shortening, adding and removing foods.	2  Tongs	3  Deep fat frying thermometer for controlled frying temperatures
4  Heavy kettle	5  Electric fryer with controlled temperature	6  Paper towels to absorb excess oil
7  Deep heavy skillet	8  Saucepan or pot with fry basket	9  Electric frypan with controlled temperature

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 2: Fats and Oils

ASSIGNMENT SHEET #1: IDENTIFYING FATS AND OILS AND THEIR FUNCTIONS

Directions: In each of the recipes below, underline the fat(s) [illegible]) used and identify the function(s) of the fat or oil in each food.

CHOCOLATE CHIP COOKIES

1

2/3	cup shortening
2/3	cup butter or margarine, softened
1	cup granulated sugar
1	cup brown sugar (packed)
2	eggs
2	teaspoons vanilla
3	cups flour
1	teaspoon soda
1	teaspoon salt
1	cup chopped nuts
2	packages (6 ounces each) semisweet chocolate pieces

Heat oven to 375°. Mix thoroughly shortening, butter, sugars, eggs and vanilla. Stir in remaining ingredients. (For a softer, rounder cookie, add 1/2 cup flour.)

Drop dough by rounded teaspoonfuls 2 inches apart onto ungreased baking sheet. Bake 8 to 10 minutes or until light brown. Cool slightly before removing from baking sheet.

ABOUT 7 DOZEN COOKIES.

Functions: ______________

____

FLORENTINE SALAD

2

1 1/2	pounds spinach
1	clove garlic, slivered
3/4	cup salad oil
1/2	cup red wine vinegar
1/2	teaspoon salt
	Dash pepper
3	hard-cooked eggs, chopped
4	slices bacon, crisply fried and crumbled

Wash spinach; remove stems and tear leaves into bite-size pieces. Dry; chill 2 hours. Let garlic stand in oil 1 hour; remove garlic.

Just before serving, mix oil, vinegar, salt and pepper in large salad bowl. Add spinach and toss with dressing until leaves are well coated. Sprinkle with chopped eggs and crumbled bacon; toss.

10 SERVINGS.

Functions: ______________

____

WILTED LETTUCE SALAD 3

2	bunches leaf lettuce, washed
4	slices bacon, diced
1/4	cup vinegar
1/3	cup chopped green onions
1/4	teaspoon salt
1/8	teaspoon pepper
2	teaspoons sugar

Just before serving, shred lettuce with knife (about 4 cups). In large skillet, fry bacon until crisp. Add vinegar; heat through. Remove skillet from heat; add lettuce and onion. Season with salt, pepper and sugar; toss 1 to 2 minutes until lettuce is wilted.

4 SERVINGS.

Functions: ______________

____

CRUNCHY FRIED TOMATOES 5

4	firm ripe or green medium tomatoes (about 1 1/2 pounds)
1	egg, beaten
1	cup dry bread crumbs
1/3	cup butter or margarine
	Salt and pepper

Dip slices into egg and then into crumbs. Melt butter in large skillet. Add tomato slices; cook, turning once, until golden brown. Season to taste.

4 SERVINGS.

Functions: ______________

____

MINUTE STEAKS 7

4	beef "cubed" steaks
1/2	cup flour
1/4	cup shortening
1/2	teaspoon salt
1/4	teaspoon pepper

Coat steaks with flour. Melt shortening in skillet; cook steaks over medium-high heat until brown and crispy, about 4 minutes on each side.

Season steaks with salt and pepper. If desired, top each steak with butter or margarine.

4 SERVINGS.

Functions: ______________

____

ALMOND CRUNCH WAX BEANS 4

1	pound fresh wax beans
1/2	cup water
2	tablespoons butter or margarine
3/4	teaspoon salt
3	tablespoons toasted slivered almonds

Wash, stem, and snap fresh beans in 1-inch pieces.

Cook and stir beans, water, butter and salt over medium heat until butter is melted. Cover; cook 20 to 25 minutes or until beans are tender. Stir in almonds.

4 SERVINGS.

Functions: ______________

____

APPLE PIE 6

10-inch
Pastry for 10-inch Two-crust Pie

1	cup sugar
1/3	cup flour
1	teaspoon nutmeg
1	teaspoon cinnamon
	Dash salt
8	cups thinly sliced pared tart apples
3	tablespoons butter or margarine

Heat oven to 425°. Prepare pastry. Stir together sugar, flour, nutmeg, cinnamon and salt; mix with apples. Turn into pastry-lined pie pan; dot with butter. Cover with top crust which has slits cut in it; seal and flute. Cover edge with 2- to 3- inch strip of aluminum foil to prevent excessive browning; remove foil last 15 minutes of baking.

Bake 40 to 50 minutes or until crust is brown and juice begins to bubble through slits in crust.

Functions: ______________

____

FRIED CHICKEN

8

2 1/2- to 3-pound broiler-fryer chicken, cut up

1/2	cup flour
1	teaspoon salt
1/2	teaspoon paprika
1/4	teaspoon pepper
	Salad oil

Wash chicken and pat dry. Mix flour, salt, paprika and pepper. Heat salad oil (1/4 inch) in large skillet. Coat chicken with flour mixture.

Cook chicken in oil over medium heat 15 to 20 minutes or until light brown. Reduce heat; cover tightly and simmer 30 to 40 minutes or until thickest pieces are fork-tender. If skillet cannot be covered tightly, add 1 to 2 tablespoons water. Turn chicken once or twice to assure even cooking. Remove cover for last 5 minutes of cooking to crisp chicken.

4 SERVINGS.

Functions: _______________

____

STEAK DIANE

9

1/2	cup thinly sliced fresh mushrooms
2	tablespoons minced onion
1	clove garlic, crushed
1/8	teaspoon salt
1	teaspoon lemon juice
1	teaspoon Worchestershire sauce
1/4	cup butter or margarine
2	tablespoons snipped parsley
2	tablespoons butter or margarine
1	pound beef tenderloin, cut into 8 slices

Cook and stir mushrooms, onion, garlic, salt, lemon juice and Worcestershire sauce in 1/4 cup butter until mushrooms are tender. Stir in parsley; keep sauce warm.

Melt 2 tablespoons butter in skillet; turning once, cook tenderloin slices over medium-high heat to medium doneness, about 3 to 4 minutes on each side. Serve with mushroom-butter sauce.

4 SERVINGS.

Functions: _______________

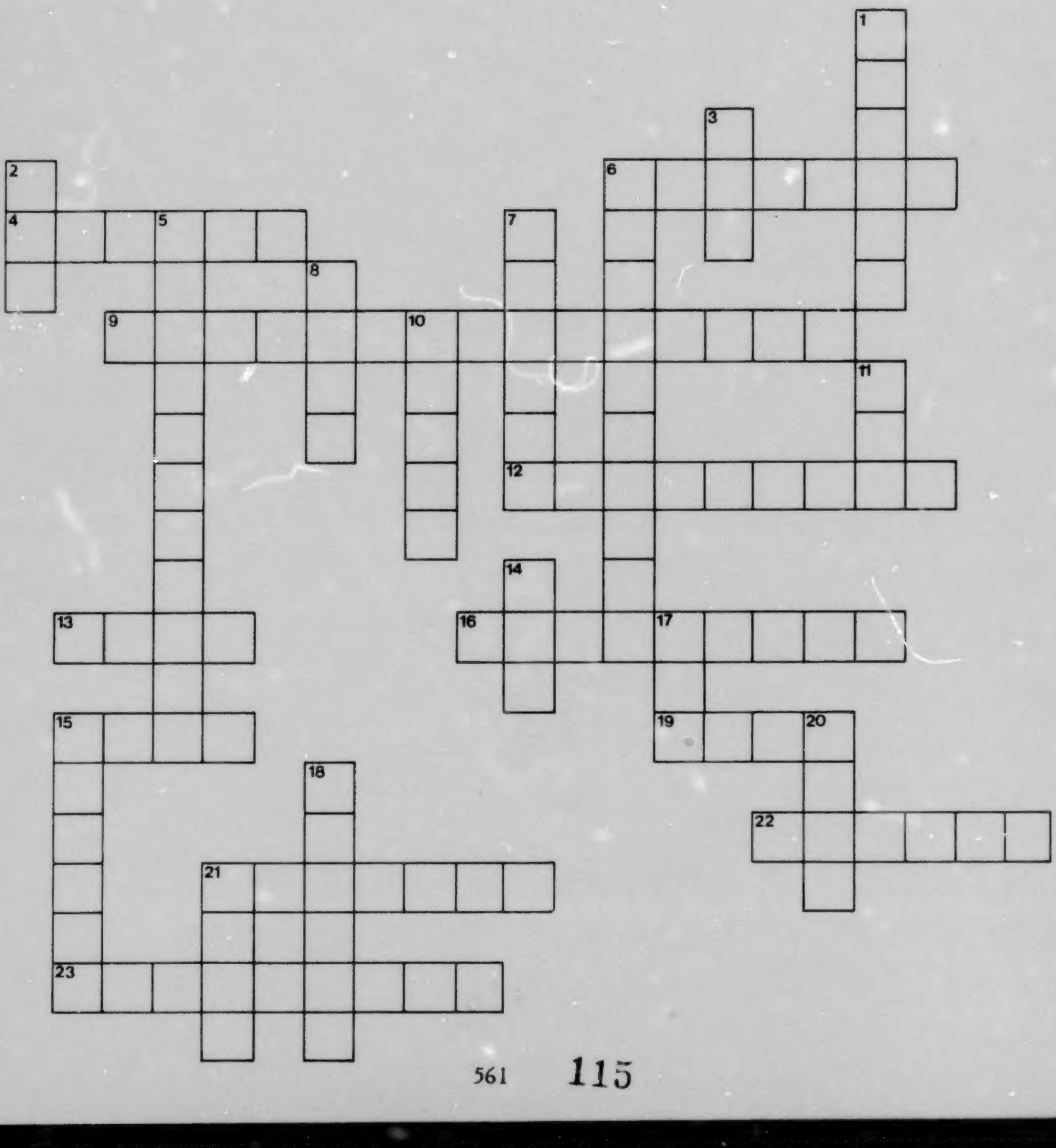
____

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 2: Fats and Oils

ASSIGNMENT SHEET #2: FATS AND OILS CROSSWORD PUZZLE

Directions: Read these clues to words about fats and oils, then complete the crossword puzzle below.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ACROSS

4. having an unpleasant, strong flavor
6. the point at which fats begin to give off fumes
9. fats which contain fatty acids with several hydrogen atoms missing
12. method used to separate fat from tissues of hog
13. fat from hogs
15. fats which are usually liquids at room temperature
16. artificial form of butter
19. Consumers must ______ the labels on fats and shortening.
21. Water droplets and wet food will make hot fat ______.
22. Fats and oils make baked products ______.
23. a kind of oil

DOWN

1. A plant source of oil
2. One way to cook with fat
3. Where lard comes from
5 A substance found in animal fat
6. hydrogenated vegetable oil
7. fat made from cream
8. beef fat
10. unsalted butter
11. A container shortening comes in
14. Subject of this lesson
15. Oil of these is rich in flavor and is expensive
17. Whipped into some margarine and shortening
18. One of the functions of fat in cooking
20 A type of fat frying
21. Some margarines are sold in _____ form.

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 2: Fats and Oils

ANSWERS TO ASSIGNMENT SHEETS

Assignment #1: A. Underline: 2/3 shortening
2/3 cup butter or margarine
Functions: Flavor
Tenderize

B. Underline: 4 slices bacon (NOTE: This forms drippings)
Functions: Flavor
Hold salad ingredients together

C. Underline: 3/4 cup salad oil
Functions: Hold salad ingredients together
Flavor (opt)

D. Underline: 2 T butter or margarine
Functions: Flavor

E. Underline: 1/3 cup butter or margarine
Function: Keep food from sticking
Flavor

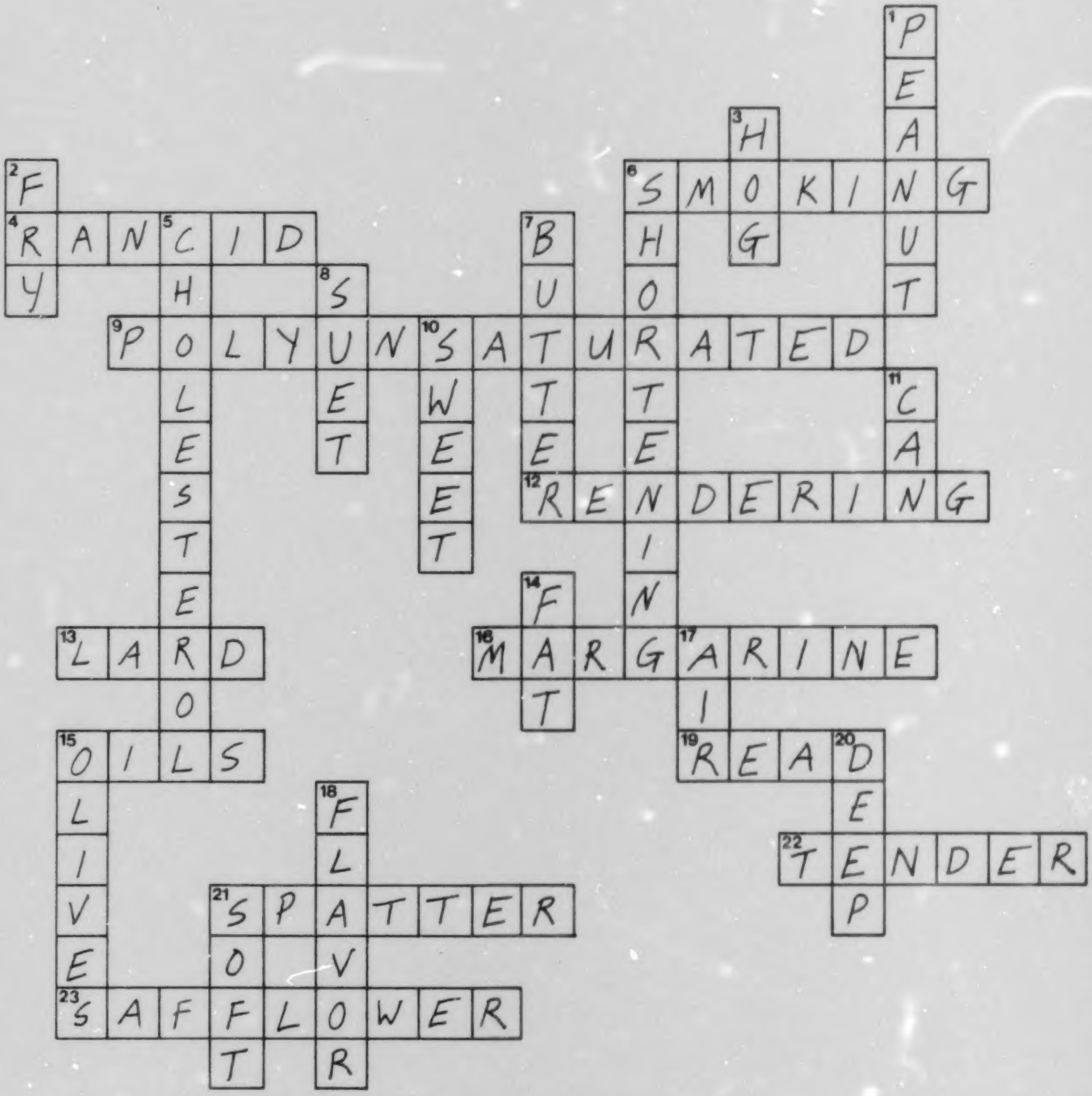
F. Underline: 1/4 cup shortening
Function: Keep food from sticking
Flavor

G. Underline: 3 T butter or margarine
Functions: Flavor

H. Underline: Salad oil
Functions: Transfer heat to food
optional: Keep from sticking
optional: Flavor

I. Underline: 1/4 cup butter or margarine
2 T butter or margarine
Functions: Flavor
optional: Keep from sticking
optional: Transfer heat to food

Assignment #2:


1 PEANUT
2 FRY
3 HOG
4 RANCID
5 CHOLESTEROL
6 SMOKING
SHORTENING
7 BUTTER
8 SUET
9 POLYUNSATURATED
10 SWEET
11 CAN
12 RENDERING
13 LARD
14 FAT
15 OILS
OLIVE
16 MARGARINE
17 AIR
18 FLAVOR
19 READ
20 DEEP
21 SPATTER
SOFT
22 TENDER
23 SAFFLOWER

Lesson 2: Fats and Oils

JOB SHEET #1: Comparison of Fats and Oils

PART A: FRYING

Directions: Divide class into 3-4 groups. Using frozen or fresh french fries each group is to follow the steps of deep fat frying to prepare the fries in one type of fat listed below. Each student then samples fries from each group to complete form. Discuss findings with the class.

Supplies and Equipment:

Fresh or frozen french fries (amount depends on number of groups)
Shortening, lard, butter(margarine), and oil
Deep fat frying equipment

Procedure:

A. Melt enough fat in frying equipment (skillet, electric fryer, etc., of your choice) to submerge fries.
B. Add fries (approximately 1 handful) when temperature reaches 385° (check with thermometer.)
C. Fry until golden brown.
D. Remove from fat and drain.
E. Sample.
F. Complete comparison chart.
G. Discuss results with the class.

	LARD	OIL	SHORTENING	BUTTER (Opt.)
Smoking Pt. (Give Temp.)				
Amt. of Foaming (None, Some, Excessive)				
Flavor (Describe)				
Texture (Describe)				
Color (Describe)				
Other Comments				

EVALUATION - Which type of fat would you recommend for french fries?

Why?

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 2: Fats and Oils

JOB SHEET #1: COMPARISON OF FATS AND OILS

PART B: BAKING

Directions: Divide the class into 3-4 groups. Each group should follow the recipe below, each using a different type of shortening. After baking, each student should sample cookies from each group and evaluate. Discuss results with the class.

I. Ingredients for Sugar Cookies

1 cup	shortening (lard, oil, vegetable shortening, butter, margarine or combination of butter and shortening
1 cup	granulated sugar
1/2 cup	brown sugar
1	egg
1 tsp.	vanilla
2 cups	flour
2 tsp.	baking soda
	pinch salt
2 tsp.	cream of tartar

Approximately 1/4 - 1/2 cup extra granulated sugar (roll cookies in this)
Makes about 3 doz. cookies

II. Equipment

- A. Measuring spoons
- B. Measuring cups
- C. Metal spatula
- D. Wooden spoon
- E. Cookie sheets
- F. Turner

III. Procedure

- A. Cream shortening and sugars.
- B. Mix egg and flavoring thoroughly.
- C. Stir flour, baking soda, cream of tartar, and salt together.
- D. Blend in to creamed mixture.
- E. Heat oven to 350 degrees.
- F. Shape with the hands to form balls approximately 1" in diameter.
- G. Roll in sugar.
- *H. Place on lightly greased baking sheet.

*NOTE: To compare the performance of various shortenings in preventing sticking, bake some cookies on a sheet lightly greased with butter, some with oil, some with shortening and some with lard.

I. Bake 8-10 min. or until cookies are a delicate golden color (cookies will rise and fall, then crack)
J. Wait a minute before removing from pans.
K. Sample.
L. Complete comparison sheet.
M Discuss results with class.

	LARD	OIL	SHORTENING (could compare more than 1 brand)	BUTTER (margarine)
FLAVOR (Describe)				
TEXTURE (Describe) Unbaked				
Baked				
COLOR (Describe)				
OTHER COMMENTS				
PREVENTION OF STICKING:				

EVALUATION: Which type of fat would you recommend for baking sugar cookies?

Why?

JOB SHEET #2: USING FATS AND OILS IN EMULSION

Part A: French Dressing (temporary emulsion)

Directions: Following the procedure below, prepare french dressing using oil to make the emulsion. Taste, then answer questions. Save any extra dressing to use on salad in a later section. For comparison, another mixture might be made using the same ingredients, omitting the oil.

I. Ingredients:

1/2	cup salad oil
1/4	cup vinegar
1	tsp. salt
1/4	tsp. pepper
1/4	tsp. paprika
1/4	tsp. onion salt (optional)
1	tsp. dry mustard
1	tsp. sugar
1	Tbsp. catsup

II. Equipment

A. Jar with tight-fitting lid
B. Measuring spoon
C. Measuring cups
D. Metal spatula (leveling)

III. Procedure

A. Place all ingredients in a jar with a tight-fitting lid.
B. Shake well until all ingredients are evenly dispersed.
C. Store in refrigerator.
D. Before using, shake again. Serve on a tossed lettuce salad.
E. Answer questions.

Answer the following:

1. What function does oil play?
2. Does the oil add any flavor?
3. How does the oil affect the texture?
4. Why do the ingredients separate?
5. Because of this separation, what needs to be done before serving?

NOTE: Different groups may want to use different types of oil and compare taste difference.

NOTE: This job sheet could be done as an instructor or student demonstration.

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 2: Fats and Oils

JOB SHEET #2: USING FATS AND OILS IN EMULSION

Part B: Mayonnaise (permanent emulsion)

Directions: Following the procedure below prepare mayonnaise using oil to make the emulsion. Taste, then answer the questions.

I. Ingredients

1	egg yolk
1 1/2	tsp. cider vinegar
1/4	tsp. salt
	dash sugar
	dash white pepper
	few grains cayenne pepper
1/4	tsp. dry mustard
1/2	cup salad oil
1 1/2	tsp. lemon juice

II. Equipment

A. Measuring spoons
B. Measuring cups
C. Metal spatula (leveling)
D. Rotary beater, wire whisk or electric mixer
E. Mixing bowl
F. Covered jar

III. Procedure

Hint for success: All ingredients must be measured before you begin.

A. Mix egg yolk, vinegar, salt, sugar, peppers, and dry mustard in small bowl.

B. Beat with a rotary beater, wire whisk, or electric mixer until well blended.

C. Add oil, 1 tsp. at a time at first, beating vigorously after each addition. Continue until 1/2 of the oil has been added. **ONCE YOU BEGIN TO BEAT, DO NOT STOP UNTIL PRODUCT IS MADE.**

D. Start to alternate oil with a few drops of lemon juice. Continue until all the oil and lemon juice have been added.

E. Mixture should be thick and smooth. Store in covered jar in refrigerator. If mayonnaise starts to separate, the oil may have been added too quickly. This can be remedied. Mix the mayonnaise into 1 egg yolk, 1 Tbsp. cold water, and a small amount of vinegar or smooth mayonnaise. Do this slowly and thoroughly.

F. Answer the following:

1. What function does oil play?
2. Does the oil add any flavor?
3. How does the oil affect the texture?
4. Why is the beating procedure so important?

NOTE TO INSTRUCTOR: Save any extra dressing to use on salads in Unit VII, Lesson 4.

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 2: Fats and Oils

JOB SHEET #3: USING FATS AND OILS PROPERLY (DEEP-FAT FRYING)

Directions: Choose Part A or Part B and deep-fat fry following the guidelines given in the information pages. Evaluate on the form provided.

PART A: Spicy Cake Doughnuts (Makes 20)

1. **Ingredients**

3 1/4	cups all-purpose flour
2	tsp. baking powder
1/2	tsp ground cinnamon
1/4	tsp ground nutmeg
	Dash salt
2	eggs
2/3	cup sugar
1	tsp vanilla
2/3	cup light cream
1/4	cup butter, melted
1/2	cup sugar
1/2	tsp ground cinnamon
	shortening (for frying)

2. **Equipment**

A. Measuring cups
B. Measuring spoons
C. Mixing bowls
D. Metal spatula (leveling)
E. Wooden spoon
F. Rotary or electric mixer
G. Doughnut cutter
H. Pastry board, cloth or sheet
I. Turner
J. Deep frying pan
K. Tongs
L. Paper towels
M. Small bowl

3. Procedure

A. Stir to thoroughly combine the flour, baking powder, 1/2 tsp. cinnamon, nutmeg, and salt.
B. Beat together eggs, 2/3 cup sugar and vanilla till thick and lemon colored.
C. Combine light cream and melted butter.
D. Alternately add dry ingredients and cream mixture, half at a time, to egg mixture.
E. Beat just till blended after each addition.
F. Chill dough 2 hours or overnight.
G. Roll dough 3/8" thick on floured board.
H. Cut with floured cutter.
I. Fry in deep hot fat (375 degrees) turning once (allow about 1 minute per side.)

*Follow guidelines in information pages.

J. Drain on paper towels.
K. Dip warm doughnuts in a mixture of 1/2 cup sugar and 1/2 tsp cinnamon.
L. Evaluate.

PART B: Apple Fritters (makes 20-30)

I. Ingredients

1 cup	chopped apples
1 cup	flour
1 tsp	baking powder
1 tsp	salt
2	eggs
1/2 cup	milk
1 tsp	salad oil
	Fat for frying

II. Equipment

A. Measuring spoons
B. Measuring cups
C. Metal spatula (leveling)
D. Mixing bowl
E. Rotary beater
F. Tablespoon
G. Deep frying pan
H. Tongs
I. Paper towels
J. Small bowl

III. Procedure

A. Measure all ingredients into bowl, except apples.
B. Beat with rotary beater until smooth.
C. Stir in apples.
D. Heat fat (3-4") to 375 degrees in deep fat fryer.
E. Drop level tablespoons into hot fat and fry about 5 minutes.
F. Complete evaluation.

HOW WOULD YOU RATE YOUR FRIED FOODS?

Teacher/Student Evaluation

Characteristic	Possible Points	Your Score	How Would You Describe Your Fried Product?
Appearance			
Golden brown surface	20		
Uniform color and shape	20		
Texture			
Crisp, tender, light	20		
Flavor			
Fresh, true flavor of food	20		
Uniformly cooked	20		
TOTAL SCORE	100		

Did you have any of the following problems? If so, what caused them?

Possible Problems	NO	YES	Probable Causes
Spattering			
Food tastes greasy			
Fat smokes			
Fat bubbles over			
Food is not done on inside			

What type of fat did you use? Why? Would you use the same product again? Why/why not?

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 2: Fats and Oils

ANSWERS TO JOB SHEETS

Job Sheet # 1 Evaluation should be based on completeness of answers on charts and laboratory performance.

Job Sheet #2 Evaluation should be based on the following scale:

Correct procedures followed	**10 pts each** (2 dressings)
Questions correctly answered	**10 pts each** (2 dressings)
Total	**40 points**

Questions:

Part A:

1. Holds ingredients together, adds flavor and texture
2. Yes
3. Gives an oily texture to hold dressing to salad
4. There is no emulsifying agent and mixing was not thorough enough
5. Shake immediately before serving

Part B:

1. Holds ingredients together, adds flavor and texture
2. Yes
3. Gives an oily, smooth texture
4. So oil droplets will be evenly and permanently suspended
5. Eggs act as an emulsifying agent and beating was thorough.

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 2: Fats and Oils

TEST

1. Match the terms at the left with the definitions at the right by placing the number in the correct blank .

   1. shortening
   2. rancid
   3. suet
   4. sweet butter
   5. rendering
   6. lard
   7. margarine
   8. cholesterol
   9. saturated fats
   10. polyunsaturated fats
   11. smoking point

   ____ a. fats which contain fatty acids with no missing hydrogen atoms; usually solid at room temperature

   ____ b. fats which contain fatty acids with several hydrogen atoms missing; usually liquid at room temperature

   ____ c. a fatlike waxy substance found in animal fats

   ____ d. hydrogenated vegetable oil

   ____ e. man-made alternate for butter

   ____ f. soft fat from a hog

   ____ g. method used to separate fat from tissue of a hog

   ____ h. having an unpleasant, strong flavor

   ____ i. beef fat

   ____ j. temperature at which a fat begins to give off fumes.

2. Describe at least five contributions of fats and oils to the diet.

3. List at least 5 types of fats and oils and two descriptive details about each.

   a.

      1.

      2.

   b.

      1.

      2.

   c.

      1.

      2.

   d.

      1.

      2.

   e.

      1.

      2.

4. List 4 general guidelines to follow when buying fats and oils.

   a.

   b.

   c.

   d.

5. Place a (+) beside each statement below which is a guideline to follow when using fats and oils.

____ a. Vegetable oils usually work better for deep fat frying than butter.

____ b. After use for frying, fats should be discarded.

____ c. Foods fried in solid fats will have an oilier appearance than those fried in oil.

____ d. Chicken should be started at a higher temperature and then turned down.

____ e. Fat should be heated before adding food.

6. Place a (+) beside each statement below which is a guideline to follow in storage of fats and oil.

____ a. Cover container tightly.

____ b. Refrigerate all fats and oils.

____ c. Butter can be frozen successfully.

____ d. Overheating will cause decomposition.

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 2: Fats and Oils

TEST KEY

1. a. 9
   b. 10
   c. 8
   d. 1
   e. 7
   f. 6
   g. 5
   h. 2
   i. 3
   j. 11

2. Answer should include any 5 of the following

   a. Concentrated source of energy
   b. Satiety value
   c. Keeps constant body temp
   d. Source of essential fatty acids
   e. Carry vitamin A, D, E, and K
   f. Protects organs
   g. Some are a source of vitamin A
   h. Provides cholesterol
   i. Helps in normal elimination

3. Answer should include any 5 types listed below with any 2 descriptive details given for each.

   a. Vegetable shortening

      1. soft, bland, unsalted
      2. made from vegetable oils (or vegetable and animal fats)
      3. relatively inexpensive
      4. high smoking point
      5. good for baking, panfrying, sauteing, and deep fat frying
      6. whipped varieties are available

   b. Lard

      1. Quality depends on animal
      2. Comes from hog
      3. Usually deodorized and decolorized
      4. Usually less expensive than other shortenings

5. Must be government inspected
6. Tenderizes more than other shortening
7. Used in baking and frying

c. Butter

1. Made by churning cream
2. Commonly used fat for table
3. Used for flavor
4. Used in baked products
5. Expensive for frying and has low smoking point
6. Should have fresh odor and taste and spread evenly
7. Sold also in unsalted and whipped types

d. Margarine

1. Made from vegetable oils (same as shortenings) with color and flavor added
2. Close to butter in flavor
3. Used for same purposes as buter
4. Less expensive than butter
5. Sold in soft, whipped, liquid and diet forms

e. Other fats

1. Beef fat (suet)
2. Meat drippings
3. Salt pork
4. Peanut butter

f. Vegetable oils

1. Made from seeds and nuts
2. Vary in flavor
3. Vary in cost
4. Used for frying and some baking
5. Exposure to light shortens life

4. a. Buy least expensive for purpose
b. Buy a fat that will serve more than 1 purpose
c. Read labels
d. Remember that whipped varieties have air added

5. a. +
b.
c.
d. +
e. +

6. a. +
b.
c. +
d. +

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 3: Cereals and Breads

LESSON OBJECTIVE

After completion of this lesson, the student should be able to select, care for, prepare and properly store cereals, breads and pasta. This knowledge will be evidenced through completion of assignment and job sheets and by scoring 85% on the lesson test.

SPECIFIC OBJECTIVES

After completion of this lesson, the student should be able to:

Cereals

Match terms associated with cereals to the correct definitions.*
Select from a list the main nutrients found in cereals.*
Match parts of cereal grains to their correct descriptions.*
Name three general classes of cereals.*
Describe the methods used in cereal cookery.*
Compare cereal products.*
Prepare cooked cereal.*
Prepare a cereal-type product.*

Quick Breads

Match terms associated with quick breads to the correct definitions.**
Select from a list types of quick breads.**
Select from a list the main nutrients in quick breads.**
Match types of quick bread mixtures to the correct descriptions.**
Match basic ingredients used in quick breads to their functions.**
Distinguish between methods of mixing quick breads.**
Compare quick bread products.**
Prepare a quick bread.**

*These objectives are covered in Unit VII: Cereals, in Home Economics I - Basic Core.

**These objectives are covered in Unit VI: Quick Breads, Home Economics I - Basic Core.

Yeast Breads and Pastas

1. Match terms associated with pastas and yeast breads to the correct definitions.
2. Describe contributions of pasta and bread to the diet.
3. Demonstrate techniques necessary to cook pasta.
4. Identify techniques for buying and storing pasta.
5. List the function(s) of the basic ingredients in breads and baked products.
6. List and give examples of five kinds of yeast bread.
7. Identify techniques for selecting and buying breads.
8. List the six basic breadmaking steps.
9. Match bread faults with causes.
10. List the purposes of kneading breads.
11. Identify care and storage techniques for breads.
12. List ways to serve breads.

13 List ways to use leftover bread.

14. Demonstrate the ability to:
    a. Make a loaf of basic white bread
    b. Make shaped refrigerator rolls
    c. Make cinnamon rolls
    d. Evaluate breads

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 3: Cereals and Breads

SUGGESTED ACTIVITIES

I. Suggested Activities for Instructor

   A. Order films, filmstrips, pamphlets, etc. to supplement lesson.

   B. Provide students with objective sheet.

   C. Provide students with information and assignment sheets.

   D. Discuss lesson and specific objectives.

   E. Discuss information and assignment sheets.

   F. Adapt material for special needs students..

   G. Determine time allotment for lesson and decide whether assignments will be at-home assignments or in-class, which job sheets to use and whether to use one or all of the review sheets depending on class and laboratory time.

   H. Give test.

   (NOTE: Not all objectives are evaluated on test. Some objectives are evaluated only by assignment and job sheets. If you feel more thorough evaluation is needed, you will need to add additional questions to the test.).

   I. Reteach, if necessary.

INSTRUCTIONAL MATERIALS

I. Included in this lesson

   A. Objective sheet

   B. Information sheets

   C. Handouts

      1. HO 1: Pasta Shapes

      2. HO 2: Rolls of All Shapes

D. Transparency masters

  1. TM 1: Basic Ingredients
  2. TM 2: Basic Breadmaking Steps
  3. TM 3: Shaping a Bread Loaf
  4. TM 4: Rolls of All Shapes
  5. TM 5: Shaping and Cutting Cinnamon Rolls

E. Assignment sheets

  1. AS 1: Missing Words
  2. AS 2: Bread Maze

F. Answers to assignment sheets

G. Job sheets

  1. JS 1: Summer Macaroni Salad
  2. JS 2: White Bread
  3. JS 3: Refrigerator Rolls
  4. JS 4: Cinnamon Rolls

H. Test

I. Test key

II. References

A. Betty Crocker Picture Cook Book. New York: Golden Press, 1981. (Available from McGraw-Hill Book Co., St. Louis, MO.)

B. Cote, P. People, Food, and Science. Lexington, MA: Ginn and Co., 1978.

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D. Largen, V. Guide to Good Food. South Holland, IL: Goodheart-Willcox Co., Inc., 1979.

E. Medved, E. The World of Food. Lexington, MA: Ginn and Co., 1981.

F. Newberry L. and Fisher, M.F. The Food Book. South Holland, IL: Goodheart-Willcox Co., Inc., 1981.

G. White, R. Food and Your Future. Englewood Cliffs, NJ: Prentice-Hall, 1979.

III. Visuals

A. Filmstrips

(NOTE: free loan or purchase: General Mills Film Center; P.O. Box 1113; Minneapolis, MN 55440.)

1. Homemade Breads
2. Muffin Making

NOTES TO THE INSTRUCTOR

1. Demonstrate the various shapes for rolls (cloverleaf, fan tan, knots, etc.).

2. Have students visit a local grocery store to make a list of all types of pastas sold and include prices.

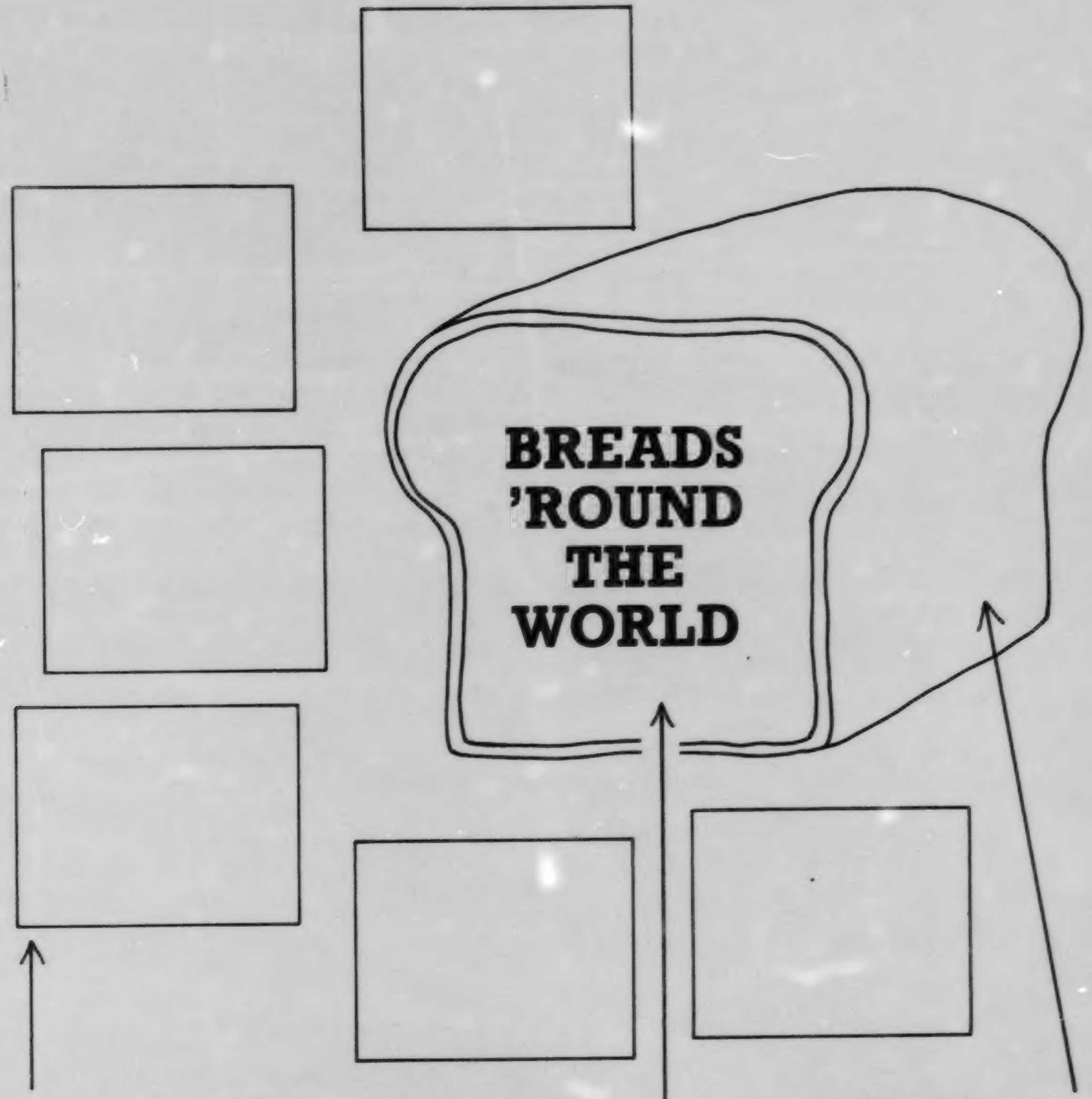
3. Find a recipe to substitute for Job Sheet #1 or have students find their own, if a more difficult pasta recipe is desired.

4. Use TM 1 "Basic Ingredients" to review functions of ingredients used in breads.

5. Find a recipe to substitute for Job Sheet #2 White Bread (adapted for a 50 minute class) if a more traditional recipe is desired.

6. Have students use leftover bread in a stuffing or bread pudding.

Bulletin Board Idea


BREADS
'ROUND
THE
WORLD

Magazine pictures of breads (try to include those from foreign countries)

golden brown construction paper

white construction paper

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 3: Cereals and Breads

INFORMATION SHEETS

I. Terms and definitions (AS 1)

A. **Brioche** - rich bread made with eggs and butter; shaped somewhat like muffins (French)

B. **Croissants** - crescent-shaped rich bread made with butter (French)

C. **Canapes** - small open-faced sandwiches

D. **Gluten** - an elastic protein substance in flour which gives the dough body

E. **Gliadin**- a protein in flour which combines with water to produce gluten

F. **Glutenin** - a protein in flour which combines with water to produce gluten

G. **Pumpernickel** - a dark coarse sourdough bread made of rye flour

H. **Pasta** - includes all macaroni, spaghetti, and noodle products; made of a paste of durum wheat flour and water, then shaped and dried.

I. **Crullers** - twisted doughnuts

J. **Fermentation** - process which takes place when yeast dough is in a warm place; causes dough to rise (increase in size)

K. **Kneading** - working dough with the hands

L. **Gelatinization** - thickening of starch granules when heated in liquid

M. **Yeast** - a tiny plant which, when placed in warm surroundings with suitable food, carries on its life processes; used as leavening in bread

II. Contributions of pasta and bread to the diet

A. Carbohydrate

B. Thiamine

C. Niacin

D. Riboflaven

E. Iron

F. Protein - small amount

III. Techniques for cooking pasta (JS 1)

   A. Bring salted water to a boil (usual proportions are 2 qt. water for every 8 oz. of pasta with 1 tablespoon salt).

   B. Add pasta gradually to the boiling water; the water should not stop boiling. Because of gelatinization, pasta added to water which is not boiling will stick together.

   C. Simmer just until tender, stirring occasionally. (The addition of about 1 tsp - 1 tbsp cooking oil to the water can help prevent sticking while simmering)

   D. Drain; do not rinse after draining because water soluble nutrients can be lost.

   E. For exact proportions and cooking times, follow pasta package directions.

IV. Buying and storage techniques for pasta

   A. Buy clean, dry packages.

   B. Read the label to compare ingredients (look for enriched flour).

   C. Buy the product best suited for the intended use. (HO 1)

   D. Compare prices (fancy shapes, colors and flavors usually cost more).

   E. Store in an airtight container away from moisture (should keep for about 1 year).

   F. Refrigerate all cooked pasta.

V. Basic ingredients in breads and baked products (TM 1)

   A. Flour - gives structure to baked products; two proteins, gliaden and glutenin, when mixed with water form gluten, which, in turn, gives strength and elasticity to batters and doughs.

      1. Bread flour from basic wheat contains the largest amount of gliadin and glutenin, which produce the strongest and most elastic gluten.

      2. All-purpose flour is made from a blend of hard and soft wheats and is satisfactory for all kinds of baking.

      3. Cake flour is made from soft wheat; its gluten structure is not as strong as that from other flours; produces a fine texture. (Too soft for yeast breads)

      4. Self-rising flour is made of all-purpose flour with salt and baking powder added; usually requires specific recipes.

5. Whole wheat flour retains all nutrients of whole grain wheat; has nutty flavor, coarse texture, dark color and is high in gluten. (Rye flour, rice flour, corn meal, etc. are also available for making breads and are usually used in combination with all-purpose flour.

B. Liquid

   1. Essential for starch to swell and gluten to develop

   2. Some liquids add nutrients and flavor

C. Salt

   1. Enhances flavor

   2. Delays the growth of yeast plants in yeast breads

D. Leavening agents - help baked product to rise

   1. Baking soda - chemical compound that produces carbon dioxide when combined with an acid (Not used in yeast breads unless in addition to yeast)

   2. Baking powder - a mixture of baking soda and a dry acid powder (not used in yeast breads)

   3. Yeast - a tiny plant which produces gas when dissolved in water; available in a dry, granular form or as a compressed cake (needs refrigeration)

E. Fat (solid and oils)

   1. Gives tenderness by shortening the strands of gluten in the flour

   2. Improves flavor and browning

F. Eggs

   1. Improve flavor, color, and browning

   2. Add nutrients

G. Sugar

   1. Provides food for yeast plants in yeast breads

   2. Retards the development of the gluten in flour (tenderizes)

   3. Improves browning and flavor

H. Seasonings and flavorings

VI. Types of yeast bread

NOTE: For quick breads see Home Economics I - Basic Core

A. Plain breads

1. White
2. Whole wheat
3. Rye
4. Pumpernickel
5. Bran
6. Oatmeal
7. Cheese
8. French
9. Italian
10. Honey
11. Sourdough

B. Fancy breads

1. Raisin
2. Tea rings
3. Coffee cakes
4. Stollen
5. French brioches
6. French Croissants

C. Rolls (usually slightly sweeter and have more egg in dough; may be made in a variety of shapes)

1. White
2. Whole wheat
3. Bran

D. Fancy rolls (sweeter than plain; fruit and nut filling)

  1. Cinnamon
  2. Caramel
  3. Fruit

E. Doughnuts

  1. Plain
  2. Cruller (twisted)
  3. Filled

VII. Techniques for selecting and buying breads

A. More nourishment for your money is gained by buying whole-grain breads and cereals.

B. Enriched, fortified, restored, and converted breads and cereals are next to whole grains in value.

C. Breads and baked foods made at home from basic ingredients cost less per serving than ready-to-eat, brown-and-serve, thaw-and-heat, separate-and-bake, or mix and bake products. These products do save time, however.

D. Sweet rolls, breads, and breakfast cakes that are ready to eat cost more than plain breads and rolls per serving; they are also higher in calories.

E. Buy by net weight, not by the size of the loaf or package.

F. Read the labels on all bread and flour carefully.

G. Plan the bread in your meals to add variety.

H. If storage space permits, shop for bread for an entire week.

VIII. Procedures for making yeast breads

A. Traditional method (AS 2) (JS 2, 3, and 4) (TM 2)

  1. Mixing - Mix warm liquid, sugar and dissolved yeast together. (If water is too hot yeast will be killed; if too cool, yeast will not grow.) Add half of the flour. Beat until smooth. Blend shortening and salt into the mixture. Add remaining flour until dough forms a soft ball.

  2. Kneading - fold, push, turn action - Using your fingers, fold half of the dough toward you. Then, using the heels of your hands, push

the dough away from you. Give dough a one-quarter turn. Repeat until dough forms a smooth ball (all kneading is done by hand unless you have a food processor or a heavy-duty mixer with a dough hook).

3. Rising - Grease bowl thoroughly. Push the dough lightly against the bowl to grease. Put bowl in warm place, (80-85°F) away from cool drafts. Dough can be placed on a rack over a bowl of hot water. When dough has risen to double its size (impression will stay when you stick two fingers in the dough), punch down and let rise again (usually).

4. Shaping (Loaves and rolls may be shaped in different ways) - Roll dough to form a rectangle. Carefully roll up the dough. Seal the lengthwise seam by pinching the dough. Seal ends and fold under. (TM 3, 4, and 5)

5. Baking - Place loaf in a dull or anodized pan with seam on the bottom. Put pan in a warm place. Let rise until double in size. Follow oven temperature and time on recipe (usually a hot oven). Remove from oven when you hear a hollow sound when you tap the crust.

6. Cooling - Remove from pan immediately. Place on wire rack. Brush crust with butter.

B. Rapid-mix method - Mix undissolved yeast with dry ingredients and use warmer liquids.

C. Cool-rise method - Mix, knead, and shape the dough all at once. Refrigerate (2-24 hrs) and bake later. This dough requires twice as much yeast and an extra tablespoon of sugar.

D. Batter method - Requires no handling or kneading; just beat yeast batter with electric mixer and let dough rise in the bowl or pan.

IX. Bread faults and their causes

A. Coarse texture - overrising, too little flour, insufficient kneading, baking temperature too low, too little salt

B. Failure to rise - incorrect temperature of liquid (too hot destroys yeast; too cool retards yeast growth), old or inactive yeast

C. Streaks - undermixing, too much fat on top during first fermentation, flour added to fermented dough, dough becoming dry on top during first fermentation

D. Uneven shapes - improper shaping, overrising, too little flour

E. Tough crust - too little shortening, too much flour, overbaking

F. Strong yeast odor or flavor - underrising, too high proportion of yeast

G. Large surface bubbles - insufficient kneading after rising, before shaping, insufficient baking

X. Purposes of kneading bread

A. Gives yeast a chance to develop

B. Develops gluten

C. Incorporates flour

XI. Care and storage techniques

A. Keep breads to be used immediately in a clean, fresh breadbox.

B. Storing in the refrigerator will promote staling but will retard mold growth and is recommended in humid conditions.

C. Warming in the microwave oven for just a few seconds can give breads a freshly baked texture and flavor.

D. Breads can be wrapped in freezer wrap or foil and successfully frozen for 3-4 months.

E. Active dry yeast should be kept in a cool, dry place and used before the expiration date.

XII. Ways to serve bread

A. Toast

B. Main dishes - pizza, French toast, base for chicken ala king

C. Sandwiches

D. Accompaniment to meal - hot or cold biscuits, rolls, etc.

E. Stuffing

F. Desserts, bread puddings, sweet rolls, etc.

G. Snacks

H. Appetizers - canapes

I. Garnish - croutons on soups and salads

XIII. Ways to use leftovers

A. Place in pan, sprinkle with water and heat in moderate oven 10-12 minutes; serve immediately.

B. Place in microwave oven for a few seconds.

C. Split, butter, and toast leftover rolls. Sprinkle with parmesan cheese for added flavor.

D. Dry and use in dressing (stuffing).

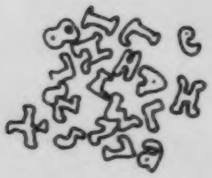
E. Dry and roll into bread crumbs for a garnish (store in tight jars).

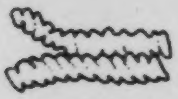
F. Dry and cut in cubes for croutons.

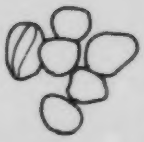
G. Use in bread pudding.

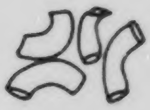
HO 1

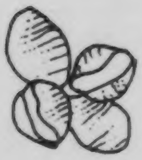
Pasta Styles

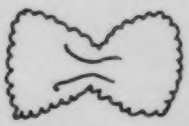

alphabets

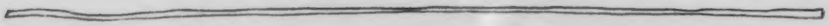

springs

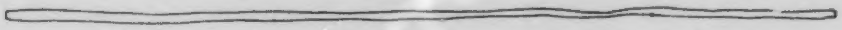

baby shells


elbow macaroni

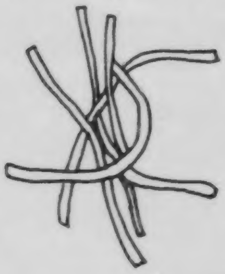

medium shells

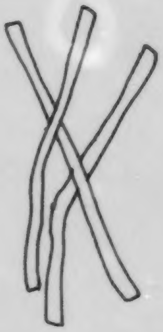

galle (bow ties)

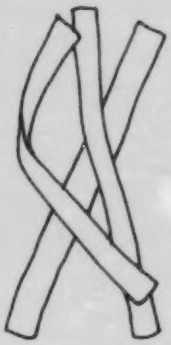

vermicelli

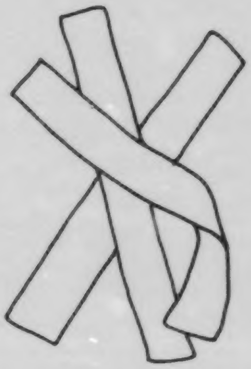

spaghetti

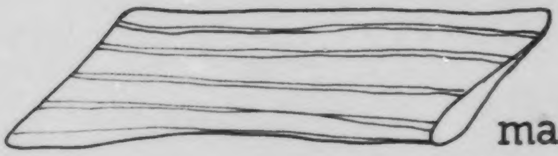
Noodles

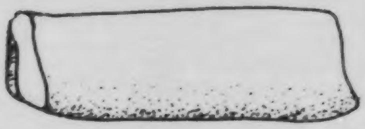

fini (fine)

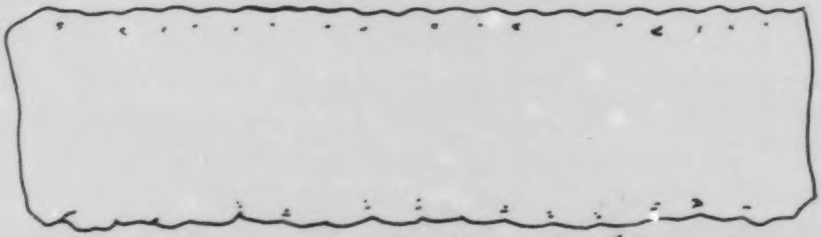

medie (medium)


larghe (broad)


extra larghe (extra broad)

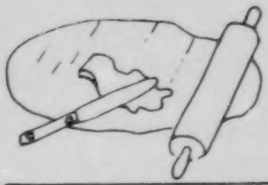

manicotti


mostaccoli


lasagna

HO 2

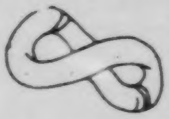
Rolls of All Shapes



For twisted shapes (below), roll dough into an oblong 12'' wide and a little less than ½'' thick. Spread with soft butter. Fold ½ of dough over the other half. Cut into strips ½'' wide and 6'' long.

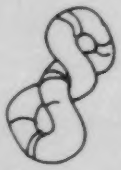
Figure 8's

Hold one end of strip in one hand and twist the other end, stretching it slightly until the two ends when brought together on greased baking sheet will form a figure 8.



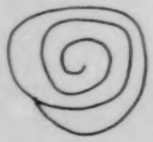
Twists

Same as Figure 8's, but give strip additional twist just before placing it on baking sheet.



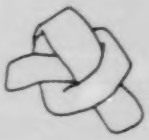
Snails

Twist and hold one end of the strip down on baking sheet. Wind strip around and around. Tuck end under.



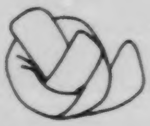
Knots

Twist and tie each strip into a knot. Press ends down on greased baking sheet.



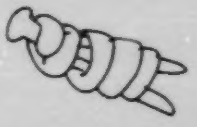
Toad-In-Hole (Turk's Cap)

Twist and tie each strip with a knot in one end of strip. Then pull the longer end through center of knot.



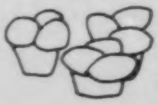
Clothespin Crullers

Wrap strip around greased clothespin so edges barely touch. When baked, twist clothespin and pull out. May be filled with jelly or fruit fillings.



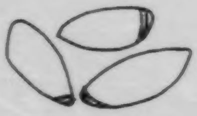
Quick Four Leaf Clover Rolls

Place 2'' ball of dough in each greased muffin cup. With scissors, cut each ball of dough in half, then in quarters.



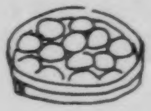
Dinner Rolls

Roll dough into cylindrical shapes with tapered ends; place on pan.



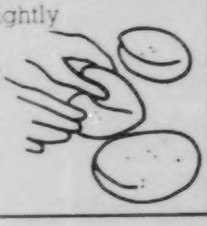
Old-fashioned Biscuits

Form dough into balls ⅓ size desired. Place close together in a greased round pan.



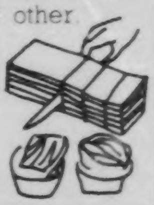
Parkerhouse Rolls

Roll dough 1/4'' thick. Cut with biscuit cutter. Brush with melted butter. Make crease across each with back of knife. Fold so top half slightly overlaps. Press edges together at crease. Place close together in pan.



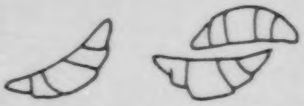
Butter Fluffs (Fan Tans)

Roll dough 1/8'' thick into oblong 9'' wide. Spread with soft butter. Cut into 6 long strips 1½'' wide. Stack 6 strips evenly, one on top of other. Cut into 1'' pieces. Place cut-side-down in greased muffin cups.



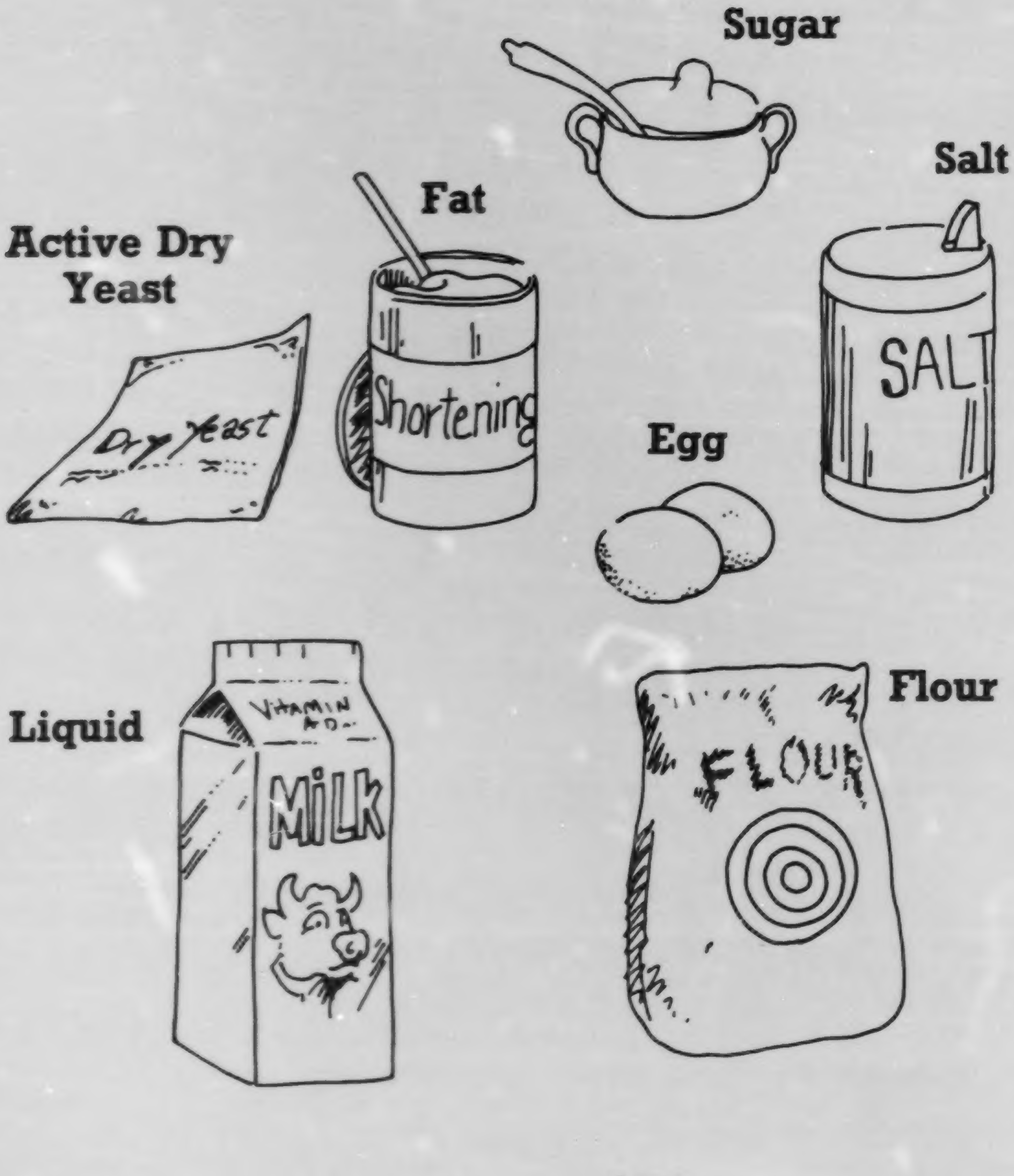
Crescents (Butterhorns)

Roll dough about 1/4'' thick into a 12'' circle. Spread with soft butter. Cut into 16 pie-shaped pieces. Beginning at rounded edge, roll up. Place on pan, point underneath.



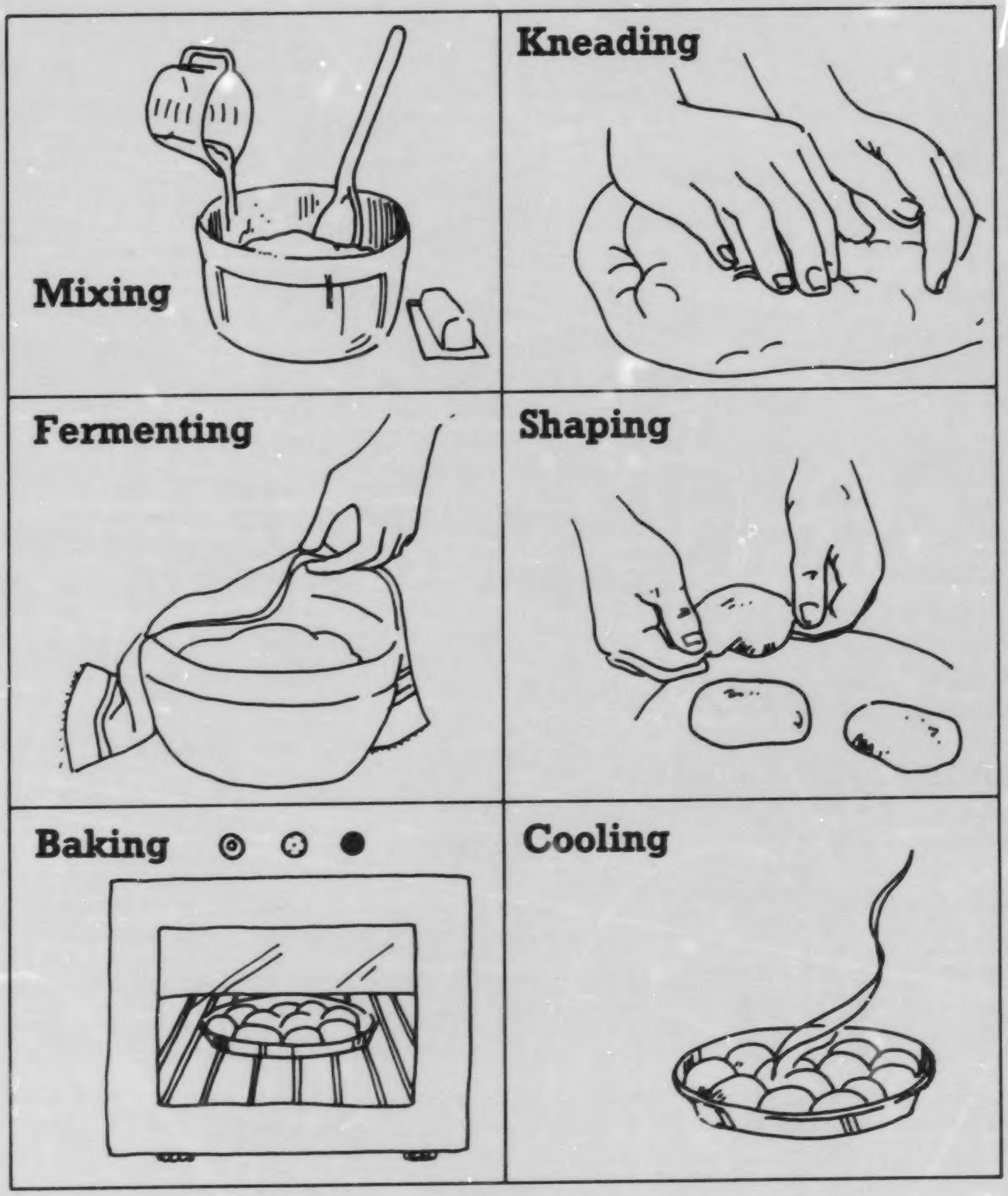
TM 1

Basic Ingredients

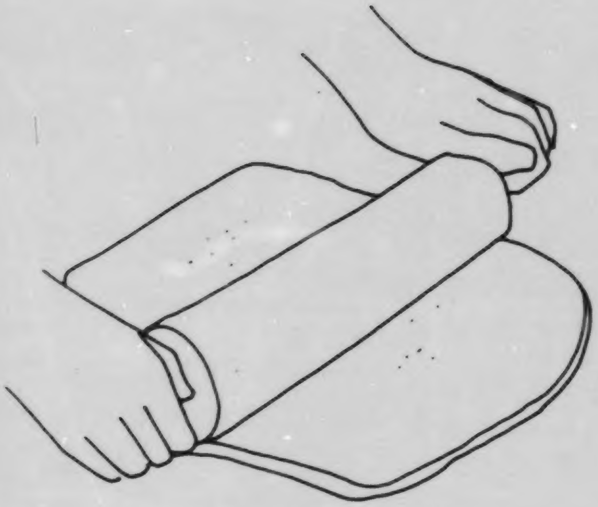

Sugar
Salt
Fat
Active Dry Yeast
Dry Yeast
Shortening
SALT
Egg
Liquid
VITAMIN AD
MILK
Flour
FLOUR

TM 2

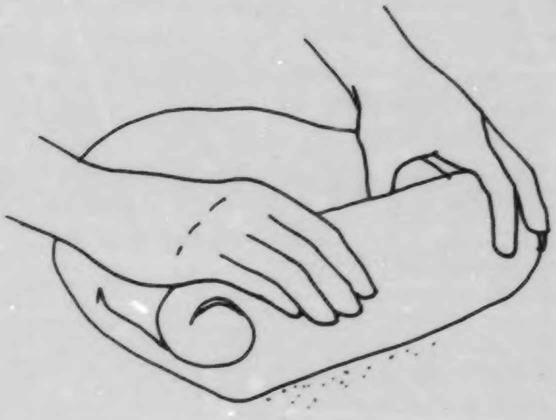
Basic Breadmaking Steps


Mixing
Kneading
Fermenting
Shaping
Baking
Cooling

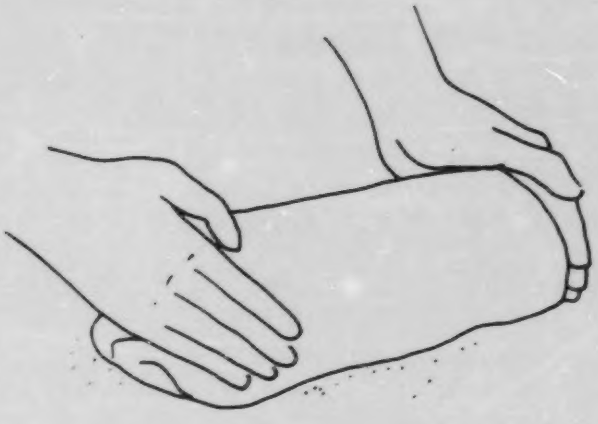
Shaping A Bread Loaf



Divide dough as specified in recipe. Flour surface lightly. With a rolling pin, roll dough 12 inches long, 8 inches wide, and of uniform thickness. Roll out all bubbles to the edges.



Begin with the 8-inch edge farthest away from you. Roll the dough up tightly toward you. Be sure no air is trapped in the dough as it will cause large holes in bread.

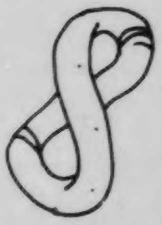


Seal the dough by pinching the seam and ends. Fold sealed ends neatly under loaf. Place in pan seam-side down.

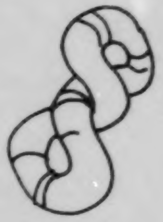
TM 4

Rolls of All Shapes

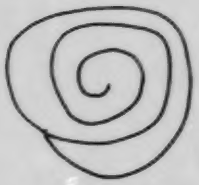
Figure 8's



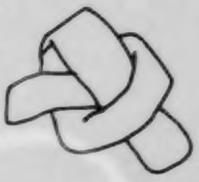
Twists



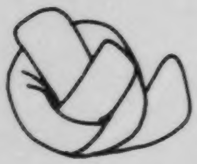
Snails



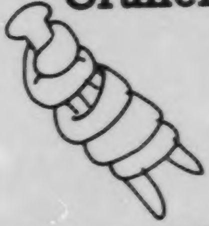
Knots



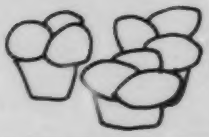
Toad-In-Hole



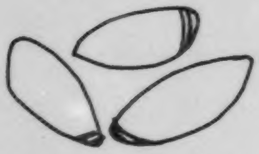
Clothespin Crullers



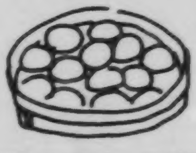
Cloverleaf Rolls



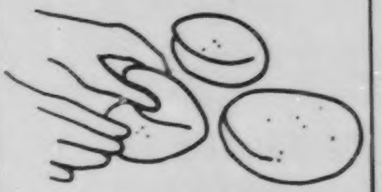
Dinner Rolls



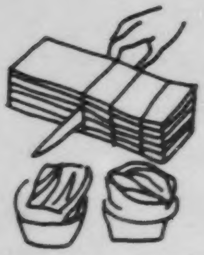
Old-fashioned Biscuits



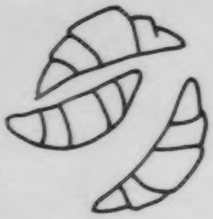
Parkerhouse Rolls



Butter Fluffs

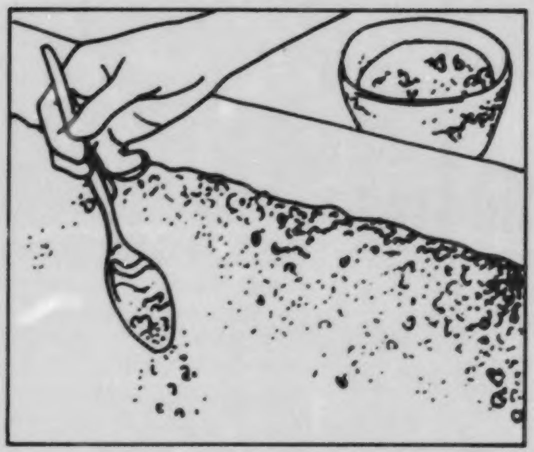


Crescents

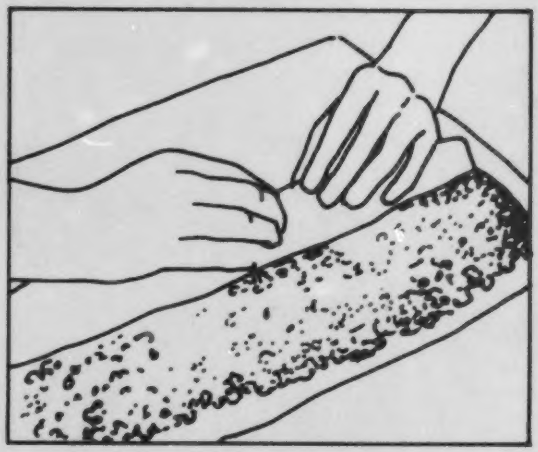


TM 5

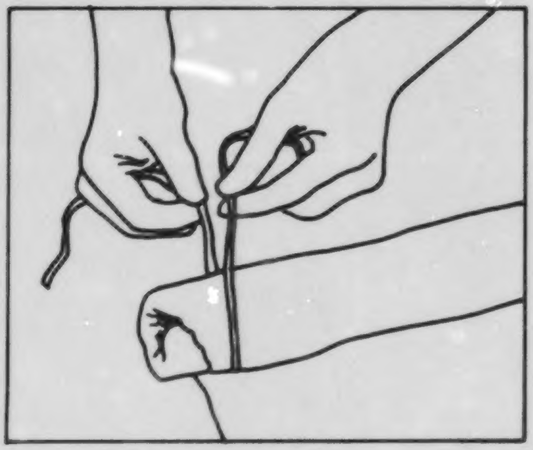
Shaping and Cutting Cinnamon Rolls



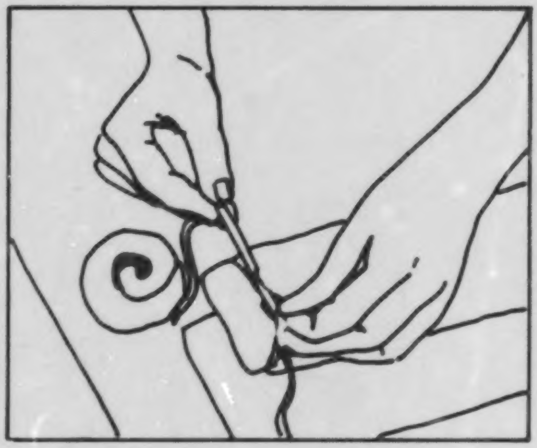
1. Roll dough into oblong 12-15 x 9". Spread with 2-4 tbsp. softened butter and sprinkle with mixture of ½ cup sugar and 1 tsp. cinnamon. Raisins may also be added.



2. Roll up tightly, beginning at narrow side. Seal well by pinching edges of roll together. Even up roll by stretching the dough slightly.



3. To cut roll into 1" slices, slide string under roll. Then hold one end with each hand. Next bring ends together at top of roll of dough.



4. Cross ends, pull string tight to cut through roll. Place in greased 9" round pan or 9 greased muffin cups. Cover, let rise until double, 1 hour or longer.

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 3: Cereals and Breads

ASSIGNMENT SHEET #1: MISSING WORDS

Directions: Using words from the term and definitions list, fill in appropriate words in the sentences below. Use one letter per space.

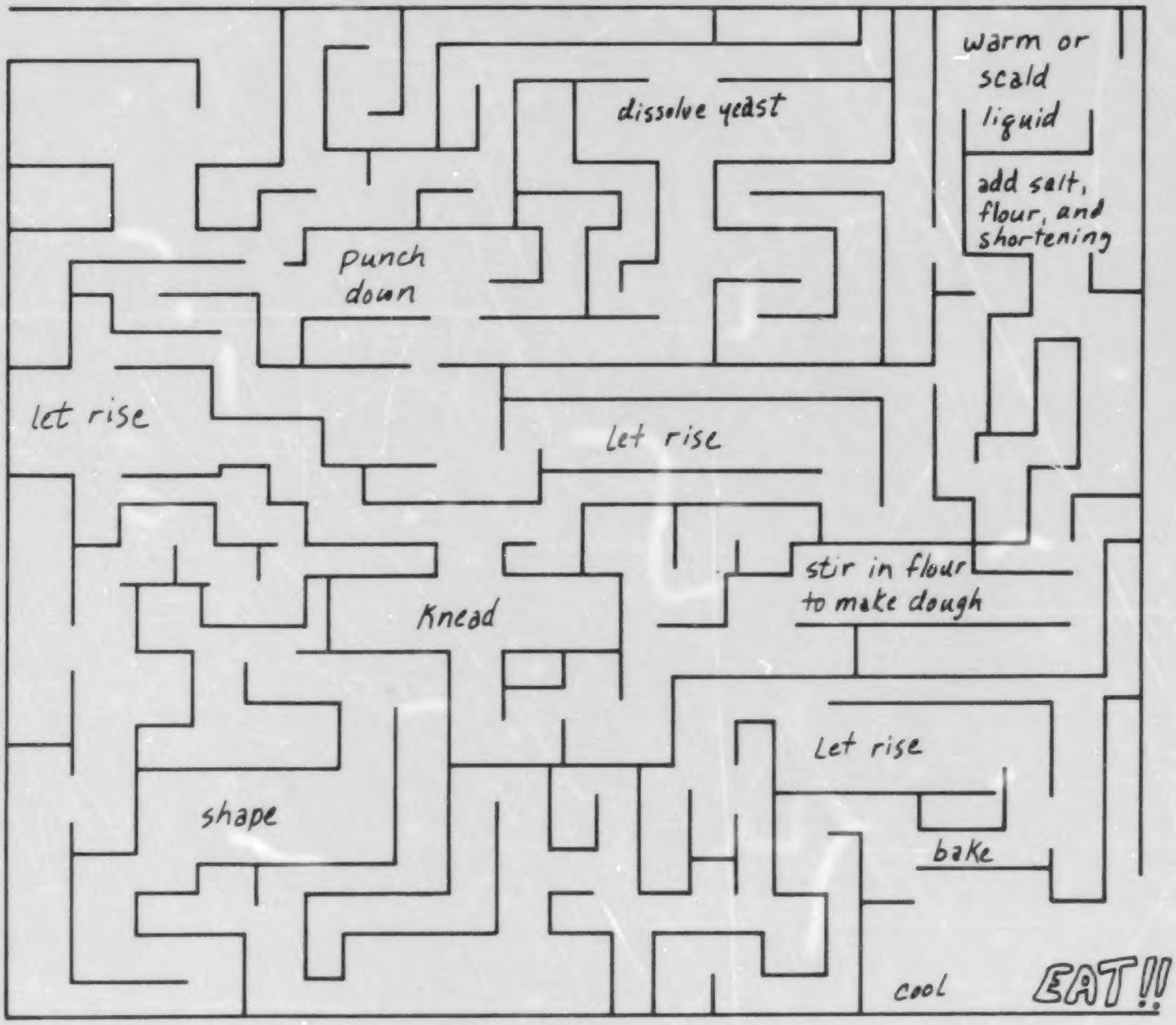
1. The bread loaf was too small because of insufficient __ __ __ __ __ __ __ __ __ __ __ __.
2. __ __ __ __ __ __ __ __ were served at the party for appetizers.
3. Susan ordered __ __ __ __ __ __ __ __ __ __ at the French restaurant.
4. Tom did not like the __ __ __ __ __ __ __ __ __ __ __ __ because he does not like the taste of a rye bread.
5. As the dough was kneaded, the __ __ __ __ __ __ made the dough more elastic.
6. Kathy liked the __ __ __ __ __ __ __ __ __ instead of the round doughnuts.
7. The expiration date on the package of __ __ __ __ __ had expired.
8. __ __ __ __ __ __ __ __ and __ __ __ __ __ __ __ __ __ are the proteins in flour.

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 3: Cereals and Breads

ASSIGNMENT SHEET #2: BREAD MAZE

Directions: Eleven steps in making bread by the traditional method are shown in the maze below. By following the maze correctly, these eleven steps should be arranged in order. Using a pen or pencil show the route taken and number each step in correct order.



warm or scald liquid
dissolve yeast
add salt, flour, and shortening
punch down
let rise
let rise
stir in flour to make dough
Knead
Let rise
shape
bake
cool
EAT!!

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

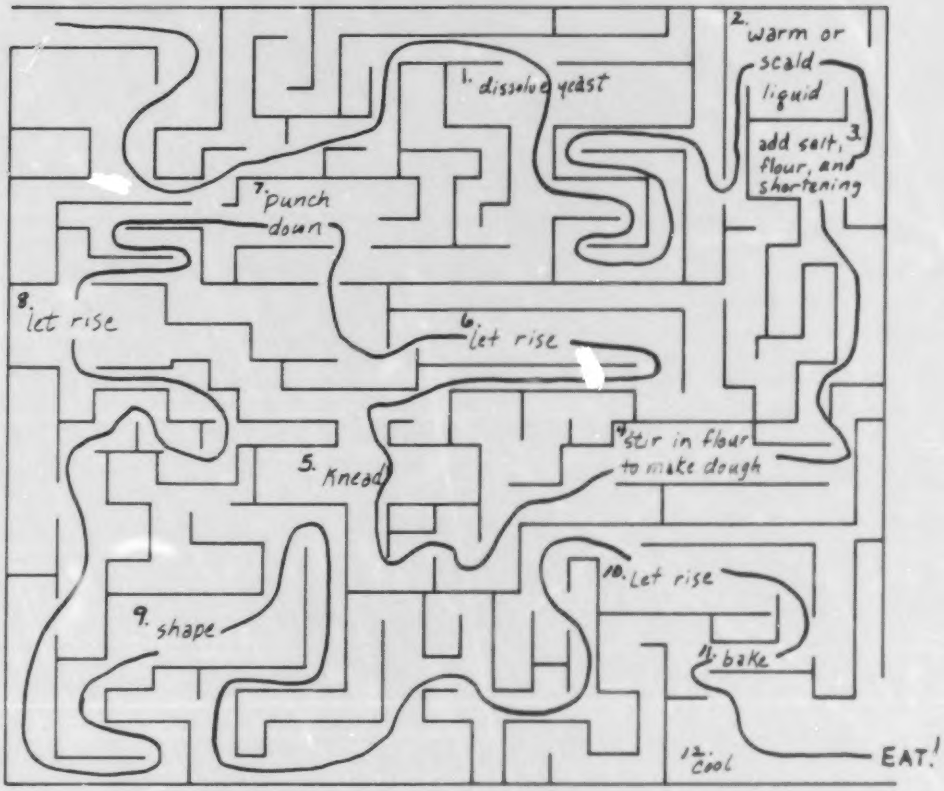
Lesson 3: Cereals and Breads

ANSWERS TO ASSIGNMENT SHEETS

Assignment Sheet #1

1. fermentation
2. canapes
3. croissants
4. pumpernickel
5. gluten
6. crullers
7. yeast
8. gliadin and glutenin

Assignment Sheet 2


1. dissolve yeast
2. warm or scald liquid
3. add salt, flour, and shortening
4. stir in flour to make dough
5. Knead
6. let rise
7. punch down
8. let rise
9. shape
10. Let rise
11. bake
12. Cool
EAT!

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 3: Cereals and Breads

JOB SHEET #1: SUMMER MACARONI SALAD

I. **Ingredients**

8 oz	elbow, shell, or ring macaroni
1 cup	cubed cheddar cheese
1 cup	sliced gherkins (pickles)
½ cup	minced onion
½ cup	mayonnaise
1 pkg	(10-12 oz) frozen peas (cooked and drained)

II. **Equipment**

A. Measuring cups
B. Spoon
C. Rubber spatula
D. Paring knife
E. Cutting board
F. 2 saucepans with lids
G. Collander
H. Serving dish

III. **Procedure**

A. Cook macaroni according to package directions (and information sheet).
B. Let cool.
C. Prepare all other ingredients.
D. Combine all ingredients.
E. Season with salt and pepper.
F. Chill.
G. Evaluate.

RATE YOUR PASTA (JS 1)

Rate the characteristics of your pasta as follows:

Excellent	5 pts
Good	3 pts
Fair	1 pt

Tender ____________

Holds shape well ____________

Texture not sticky ____________

Well drained (not rinsed) ____________

Possible 20 Received ____________

Comments:

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 3: Cereals and Breads

JOB SHEET #2: WHITE BREAD (3 day lab)

(NOTE: This recipe is adapted for a 50 minute class period, using two days to make the bread and one for evaluation.)

First Day	Second Day	Third Day
Students measure ingredients	Mix dough 10 min	Evaluate
	Knead dough 10 min	
	Rest dough 25 min	
	Shape dough 5 min	
	Total time 50 min	

I. **Ingredients**

2 pkg	dry yeast
½ cup	warm water (105-115°)
4-4½ cups	flour
2 tbsp	sugar
1½ tsp	shortening
1 ⅛ cups	HOT tap water
	Salad oil

II. **Equipment, Day 1**

A. Liquid measuring cup
B. Dry ingredient measuring cups
C. Measuring spoons
D. Metal spatula (leveling)
E. 1 large mixing bowl
F. 1 medium mixing bowl
G. Rubber spatula
H. 9 x 5 x 3" loaf pan
I. Paper towel

III. **Equipment, Day 2**

A. Bread board, pastry sheet, or cloth
B. Rolling pin
C. Pastry brush
D. Wooden spoon
E. Cooling racks

IV. Procedure, Day 1

A. Dissolve yeast in ½ cup warm water; cover and store at room temperature.
B. Measure remaining ingredients (flour in two parts: 2 cups and 2½ cups).
C. Mix in large mixer bowl - 2 cups flour, the sugar and salt.
D. Add shortening; cover and store at room temperature.
E. Grease one 9 x 5 x 3" loaf pan.
F. Study procedure for second day.

V. Procedure, Day 2

A. Add 1¼ cups HOT tap water and dissolved yeast to shortening - flour mixture.
B. Beat 2 minutes on electric mixer until batter is smooth and "sheets" off spoon.
C. Using hand or spoon, mix in enough of remaining flour until dough cleans bowl.
D. Turn dough on lightly floured board and knead 10 minutes until dough is smooth and no longer sticks to board.
E. Place pastry cloth on board, sprinkle lightly with flour. Place dough on cloth and cover with large mixer bowl and let rest 25 minutes.
F. Heat oven to 225° 10 minutes before resting time is up.
G. Roll out dough to 18 x 8" rectangle.
H. Roll up dough away from you, jelly roll style, beginning at narrow end.
I. Pinch edges to seal and turn seam-side down.
J. Push ends of roll into the loaf.
K. Seal ends firmly with the side of hand and fold sealed ends under.
L. Place roll seam-side down in prepared pan and brush top lightly with oil. Do not refrigerate.
M. Immediately place in 225° oven for 15 min.*
N. After 15 minutes, increase temperature to 425° and finish baking 30-35 minutes or until loaf sounds hollow when tapped.
O. Immediately remove bread from pan.
P. Cool on rack; brush with butter if desired.

VI. Procedure, Day 3

A. Sample
B. Evaluate

NOTE: Bread may be sliced and warmed, if desired.

*NOTE: You will have to make arrangements to have someone change oven temperature and remove bread from oven if you are unable to do so.

RATE YOUR BREAD OR ROLLS (JS 2)
STUDENT/TEACHER EVALUATION

Rate the characteristics of your rolls or loaf of white bread as follows:

Excellent	5 points
Good	3 points
Fair	1 point

Volume	Compare size to weight; bread should be light but not airy for its size	____________
Shape	Well-rounded and symmetrical; an even, well-defined division between top and side	____________
Crust	Smooth, even golden-brown; side crust slightly lighter than top; free from cracks	____________
Crumb color	Uniform creamy-white, or yellow if eggs were used, no dark or light streaks	____________
Texture	Tender and soft, not crumbly or doughy; slightly moist	____________
Grain	Uniform fine to medium-size cells, no large air bubbles	____________
Flavor	Mild yeast flavor, delicate, pleasing	____________
	MY SCORE	____________
	BEST POSSIBLE SCORE	35

Comments:

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 3: Cereals and Breads

JOB SHEET #3: REFRIGERATOR ROLLS (2-3 Day Lab)

I. Ingredients:

3/4 cup	milk
¼ cup	sugar
¼ cup	shortening
½ tsp	salt
1 package	dry yeast
¼ cup	warm water
1 egg	beaten
3-3½ cups	all-purpose flour

II. Equipment

A. Small saucepan
B. Measuring cups
C. Metal spatula (leveling)
D. Large mixing bowl
E. Wooden spoon
F. Bread board or pastry cloth
G. Plastic wrap
H. Rolling pin, knife, turner, shears, pastry brush, etc. depending on shape desired
I. Baking sheets

III. Procedure

A. Scald milk in small saucepan.
B. Add sugar, shortening, and salt; pour into large mixing bowl.
C. Cool to lukewarm. (80-85° F)
D. Soften yeast in warm water (110-115° F)
E. To the cooled milk, add the softened yeast, egg, and half of the flour.
F. Beat until smooth.
G. Add enough flour to make a soft dough.
H. Turn dough out onto a lightly floured board or cloth.
I. Knead about 5 minutes.
J. Place dough into a greased bowl; turn once to grease top.
K. Cover with plastic wrap and place in the refrigerator at least 4 hours (may be stored up to 4 days).
L. Take dough from refrigerator and shape as desired.
M. Place rolls on baking sheets.
(NOTE: At this point rolls may be returned to refrigerator and baked at another time.)
N. Let rise until doubled in bulk (about 1½-2 hours).
O. Bake at (400° F) for 12-15 minutes or until golden brown.
P. Serve immediately (makes about 12-18 rolls).
Q. Evaluate.

RATE YOUR BREAD OR ROLLS (JS 3)
STUDENT/TEACHER EVALUATION

Rate the characteristics of your rolls or loaf of white bread as follows:

Excellent	5 points
Good	3 points
Fair	1 point

Volume	Compare size to weight; bread should be light but not airy for its size	________
Shape	Well-rounded and symmetrical; an even, well-defined division between top and side	________
Crust	Smooth, even golden-brown; side crust slightly lighter than top; free from cracks	________
Crumb color	Uniform creamy-white (or yellow if eggs were used), no dark or light streaks	________
Texture	Tender and soft, not crumbly or doughy; slightly moist	________
Grain	Uniform fine to medium-size cells, no large air bubbles	________
Flavor	Mild yeast flavor, delicate, pleasing	________
	MY SCORE	________
	BEST POSSIBLE SCORE	35

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 3: Cereals and Breads

JOB SHEET #4: CINNAMON ROLLS (3-day lab)

I. **Ingredients**

1 package	yeast
¼ cup	warm (110°) water
6 tbsp.	milk
½ cup	butter
2 tbsp	sugar
1 egg	
½ tsp	salt
2 ¼ cups	flour
¼ cup	butter, melted
½ cup	sugar
1 tsp	cinnamon
	Raisins (optional)
½ cup	powdered sugar (optional)
1½ tsp	water (optional)

II. **Equipment**

A. Liquid measuring cup
B. Measuring spoon
C. Measuring cup
D. Metal spatula
E. Wooden spoon
F. Rolling pin
G. Bread board or pastry cloth
H. Pastry brush
I. Mixing bowl
J. Small saucepan
K. String
L. 8-9" round or square cake pan
M. Plastic wrap
N. Spoon
O. Knife
P. Cooling rack
Q. Plate

III. **Procedure**

Day 1
A. Dissolve yeast in warm water
B. Heat butter and milk in a small saucepan until butter melts
C. Pour butter and milk into mixing bowl
D. Stir in sugar and salt
E. Beat in 1 cup of the flour
F. Beat in egg and yeast mixture
G. Stir in rest of flour

H. Cover with plastic wrap and refrigerate 4 - 24 hours

Day 2 I. Turn out dough on floured board
J. Roll dough to a 9 x 12" rectangle
K. Brush with melted butter
L. Sprinkle with combined cinnamon and sugar mixture (raisins can also be added)
M. Roll tightly, jelly-roll style, beginning from the narrow end
N. Pinch edges to seal
O. Cut into 1" pieces (using a string, preferably)
P. Place rolls cut side down in a greased cake pan

(NOTE: Rolls can be returned to refrigerator at this point for baking later)

Day 3 Q. Let rise about 1 hour or until dough doubles in size (about 2 hours if refrigerated after shaping)
R. Bake at 350° for 35 minutes
S. Remove from pan
T. Glaze if desired with ½ cup powdered sugar and 1½ tsp water mixture
U. Evaluate

NOTE: Recipe can be doubled for home use, rolling half of the dough at a time and baking in 2 pans.

RATE YOUR BREAD OR ROLLS (JS 4)
STUDENT/TEACHER EVALUATION

Rate the characteristics of your rolls or loaf of white bread as follows:

Excellent	5 points
Good	3 points
Fair	1 point

Volume	Compare size to weight; bread should be light but not airy for its size	______
Shape	Well-rounded and symmetrical an even, well-defined division between top and side	______
Crust	Smooth, even golden-brown; side crust slightly lighter than top; free from cracks	______
Crumb color	Uniform creamy-white (or yellow if eggs were used), no dark or light streaks	______
Texture	Tender and soft, not crumbly or doughy; slightly moist	______
Grain	Uniform fine to medium-size cells, no large air bubbles	______
Flavor	Mild yeast flavor, delicate, pleasing	______
	MY SCORE	______
	BEST POSSIBLE SCORE	35

Comments:

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 3: Cereals and Breads

TEST

1. **Directions:** Match terms on the right with correct definitions on the left by placing the number in the correct blank.

____ a. Process of placing dough in a warm place for a while until it increases in size

____ b. Rich French bread made with eggs and butter; shaped like a muffin

____ c. Small open-faced sandwiches

____ d. A dark coarse sourdough bread made of rye flour

____ e. An elastic protein substance in flour which gives the dough body

____ f. All macaroni, spaghetti and noodle products

1. Brioche
2. Canapes
3. Gluten
4. Pumpernickel
5. Pasta
6. Fermentation
7. Croissants
8. Gelatinization

2. Describe the contribution of pasta and breads to the diet.

3. Place a (+) in front of the statements below which are buying and storing techniques for pastas.

____ a. Store in airtight containers in the refrigerator.

____ b. Use within one year.

____ c. Refrigerate all cooked pasta.

____ d. Prices vary little among pasta products.

4. List the functions of the basic ingredients in yeast breads.

   a. Flour

   b. Liquid

   c. Salt

   d. Yeast

   e. Fat

   f. Egg

   g. Sugar

5. List and give two examples of the five kinds of yeast bread.

   a.

      1.

      2.

   b.

      1.

      2.

   c.

      1.

      2.

   d.

      1.

      2.

   e.

      1.

      2.

6. Place a (+) beside those statements below which are techniques for selecting and buying breads.

____ a. Convenience breads do save time but not necessarily money.

____ b. All breads are made of enriched flour.

____ c. It is best to buy bread daily.

____ d. Bread should be bought by net weight, not by the size of the loaf.

____ e. Sweet rolls and breads are more expensive than plain ones.

7. List six basic breadmaking steps.

a.

b.

c.

d.

e.

f.

8. Match bread faults with their causes by selecting the most likely cause for the fault listed below. Place the correct number in the space.

____ a. Poor volume:

1. Too much liquid
2. Too much kneading
3. Short rising period
4. Both A and C

____ b. Coarse, large holes

1. Too much shortening
2. Not enough shortening
3. Too much kneading
4. Too long rising period

____ c. Streaks

1. Undermixed
2. Too soft dough
3. Yeast was killed
4. Kneaded too much

9. List the purposes of kneading yeast breads.

a.

b.

c.

10. Place a (+) beside the statements below which are correct care and storage techniques for breads:

____ a. Breads should be stored in a clean, fresh breadbox.

____ b. Storing breads in the refrigerator will promote staling.

____ c. Breads should not be frozen.

____ d. Yeast should be used before the expiration date.

____ e. Breads do not microwave well, even for warming.

11. List 5 ways to serve breads.

a.

b.

c.

d.

e.

12. List 3 ways to use leftover breads.

a.

b.

c.

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 3: Cereals and Breads

TEST KEY

1. a. 6
   b. 1
   c. 2
   d. 4
   e. 3
   f. 5

2. Answer should include the following:

   mostly carbohydrate
   B vitamins:
      Thiamine
      Niacin
      Riboflaven
   Iron
   Protein in small amounts

3. a.
   b. +
   c. +
   d.

4. a. Flour

      1. Provides gluten
      2. Provides starch

   b. Liquid

      1. Essential for starch to swell
      2. Essential for gluten to develop

   c. Salt

      1. Enhances flavor
      2. Delays the growth of yeast plants in yeast breads

   d. Yeast - Produces carbon dioxide gas which is held in the meshlike structure developed by the gluten

   e. Fat

      1. Gives tenderness
      2. Improves the flavor
      3. Improves browning

f. Egg

    1. Improves flavor
    2. Improves interior color
    3. Develops tender texture and lightness
    4. Improves browning
    5. Supplements protein

g. Sugar

    1. Provides food for the yeast
    2. Retards the development of gluten
    3. Improves browning
    4. Improves flavor

5. Should list any 2 examples under each type

    1. Plain Breads

        a. White
        b. Whole-wheat
        c. Rye
        d. Pumpernickel
        e. Bran
        f. Oatmeal
        g. Cheese
        h. French
        i. Italian
        j. Honey
        k. Sourdough
        l. Pita

    2. Fancy Breads

        a. Raisin
        b. Tea rings
        c. Coffee cake
        d. Stollen
        e. French brioche
        f. French croissants

    3. Rolls

        a. White
        b. Whole wheat
        c. Bran

    4. Fancy rolls

        a. Cinnamon
        b. Caramel
        c. Fruit

5. Doughnuts

    a. Plain
    b. Crullers
    c. Filled

6. a. +
    b.
    c.
    d. +
    e. +

7. a. Mixing
    b. Kneading
    c. Rising
    d. Shaping
    e. Baking
    f. Cooling

8. a. 3
    b. 4
    c. 1

9. a. Gives yeast a chance to develop
    b. Develops gluten
    c. Incorporates flour.

10. a. +
    b. +
    c.
    d. +
    e.

11. Any 5

    a. Toast
    b. Main dish
    c. Sandwiches
    d. Accompaniment
    e. Stuffings
    f. Desserts
    g. Snacks
    h. Appetizers
    i. Garnish

12. Any 3

    a. Sprinkle with water and warm
    b. Microwave
    c. Split and toast
    d. Dressing and stuffing
    e. Dried crumbs
    f. Dried cubes
    g. Bread pudding

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 4: Fruits and Vegetables

LESSON OBJECTIVE

After completion of this lesson, the student should be able to select, care for, prepare, and store fruits and vegetables properly. This knowledge will be evidenced by completion of assignment and job sheets and by scoring 85 percent on the lesson test.

SPECIFIC OBJECTIVES

1. Match terms associated with fruits and vegetables to their correct definitions.
2. Describe the contribution of fruits and vegetables to the diet.
3. Identify common kinds of fruits and vegetables and their characteristics.
4. Compare various forms of fruits and vegetables, giving advantages and disadvantages of each.
5. Identify guidelines for buying fruits and vegetables.
6. Identify and follow general guidelines for planning, serving, and preparing fruits and vegetables.
7. List methods of preparing fruits and vegetables and describe these various methods.
8. List ways to use leftover fruits and vegetables.
9. Match types of salads to their description.
10. Identify and describe the different types of salad dressings.
11. List the ways to serve salads.
12. Identify guidelines for planning, preparing and serving salads.
13. Identify guidelines for proper care and storage of fruits and vegetables.
14. Demonstrate the ability to:
    a. Prepare cooked fruits and vegetables properly
    b. Prepare salads properly

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 4: Fruits and Vegetables

SUGGESTED ACTIVITIES

I. Suggested activities for the instructor

  A. Order films, filmstrips, pamphlets, etc. to supplement lesson.

  B. Provide students with objective sheet.

  C. Provide students with information and assignment sheets.

  D. Discuss lesson and specific objectives.

  E. Discuss information and assignment sheets.

  F. Adapt material for special needs students.

  G. Give test.

  H. Reteach, if necessary.

INSTRUCTIONAL MATERIALS

I. Included in this lesson

  A. Objective Sheet

  B. Information sheets

  C. Handouts

    1. HO 1: How to Cook Vegetables
    2. HO 2: Know Your Greens
    3. HO 3: Salad Dressings
    4. HO 4: Making the Salad
    5. HO 5: How to Unmold a Gelatin Salad
    6. HO 6: Care of Salad Greens

  D. Transparency masters

    1. TM 1: How to Select Fresh Vegetables
    2. TM 2: How to Select Fruit
    3. TM 3: Give Proper Care to Salad Greens

  E. Assignment sheets

    1. AS 1: How Well Do You Know Vegetables and Fruits?

2. AS 2: Fruits and Vegetables from A to Z
3. AS 3: Vegetable Scramble
4. AS 4: Fruit Scramble
5. AS 5: Comparing Forms of Fruits and Vegetables
6. AS 6: Planning Fruits and Vegetables in the Menu
7. AS 7: Be an Artist with Vegetables
8. AS 8: Where Do Vegetables Grow?
9. AS 9: Mixed Salad
10. AS10: "Odd One Out" (Vegetable and Fruit Review)

F. Answers to assignment sheets

G. Job sheets

1. JS 1: Take Action
2. JS 2: Fruit Buffet
3. JS 3: Vegetable Buffet
4. JS 4: Salad Buffet

H. Job sheet evaluations

I. Test

J. Answers to test

II. References

A. The Buying Guide for Fresh Fruits, Vegetables, Herbs and Nuts. Blue Goose, Inc., USA, 1980. Available from Instructional Materials Laboratory, University of Missouri, Columbia, MO. (cost $5.25)

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C. Creasy, D., and Creasy, J. Exploring Foods. Englewood Cliffs, NJ: Prentice-Hall Inc., 1980.

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G. "How to Buy Fresh Vegetables" Home and Garden Bulletin #143 United States Department of Agriculture, 1977.

H. Kowtaluk, H. and Kopan, A., Food for Today. Peoria, IL: Chas. Bennett Co., 1982.

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UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 4: Fruits and Vegetables

NOTES TO THE INSTRUCTOR

1. Determine time allotment for lesson and decide whether assignments will be at-home assignments or in-class, which job sheets to use and whether to use one or all of the review sheets, depending on class and laboratory time.

2. Find pictures of fruits and vegetables (especially less common ones) and put on posters or use as flash cards to determine how well students know their fruits and vegetables.

3. The teacher may want to specify a time limit on the introductory survey Assignment Sheet #1 to make it more of a challenge. You may want to give bonus points for this assignment since it is introductory.

4. The teacher may wish to have students complete Assignment Sheet #2 as a class, listing vegetable and fruit ABC's on the board and discuss each one (quality, characteristics, nutrient content, etc) as it is listed.

5. The teacher may want to make a transparency of Assignment Sheets #5 and #8 and use as a class activity or write in answers and use transparency to discuss answers.

6. Assign a common vegetable or fruit (corn, beans, potatoes, etc.) and have each student list as many different ways to fix the vegetable or fruit as they can think of. (They could use cookbooks if desired.)

7. Have students analyze and evaluate their personal consumption of fruits and vegetables.

8. Not all objectives are evaluated on the test; some are evaluated only by assignment and job sheets.

9. The instructor may want to go over the evaluation sheet for Assignment Sheet #7 before students begin work. Extra copies of the teacher evaluation sheet might be made so the students can evaluate their work when completed. Also, the instructor may wish to change the number of points on evaluation sheet.

10. For Job Sheet #1, decide whether to divide class into groups, with each group doing one (or all) experiments or having each experiment demonstrated before the class.

11. If budget and time permit, have a tasting lab for both fruits and vegetables served cooked and raw so students might become familiar with less common fruits and vegetables which they might not otherwise have tried.

12. Have students compare the use of the microwave oven for cooking vegetables to cooking on the range.

13. The instructor will need to consult the references listed in this guide, especially The World of Food and The Food Book, government pamphlets, and possibly seed catalogs for detailed descriptions and pictures of the fruits and vegetables listed in the information pages.

14. In addition to the Salad Buffet (Job Sheet #4), the instructor may want to have another 2-day lab on gelatin and/or frozen salads since these require more time and slightly different procedures than other salads.

15. Have students write an advertisement for a particular vegetable or fruit; show to class or display; discuss.

16. As a review for vegetables and fruits, play "HOT POTATO". Pass around a potato. When the teacher says "STOP" the student with the potato asks a question about vegetables and fruits (Have these made up in advance.) to anyone they choose. If the student misses the question he/she has to sit out of the game. The game continues until only one person is left. This person wins the game.

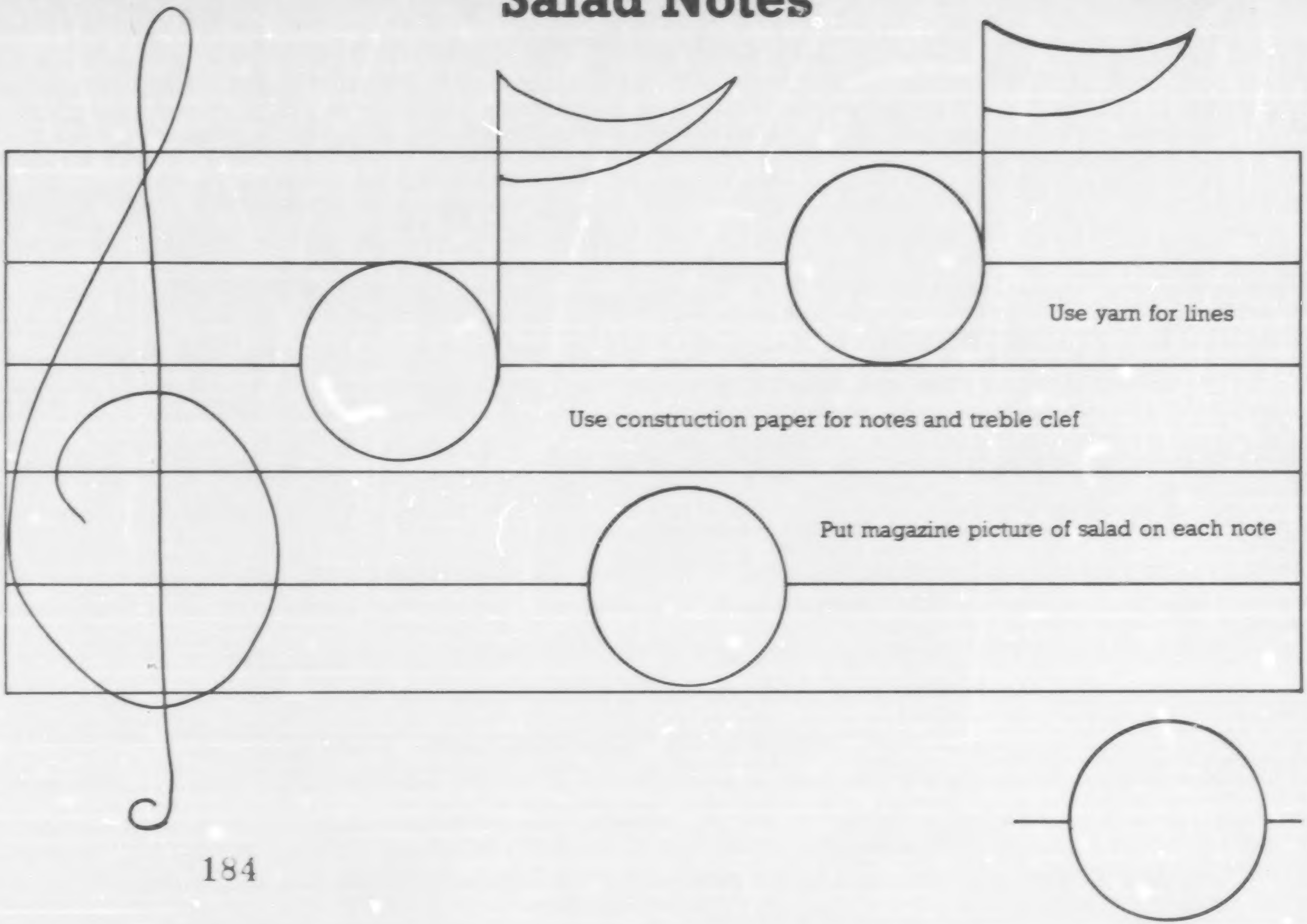
17. The instructor may want to include the portion of Lesson 5 on legumes during this lesson.

18. Use the excellent reference "The Buying Guide..." available from the Instructional Materials Laboratory (listed in reference list) to show color pictures of fruits and vegetables and give details on selecting.

19. For extra experience when making molded gelatin salads, the teacher may want to include whipped gelatins and sponges with fruits and fruit juices used as a salad or dessert.

Bulletin Board Idea

Salad Notes



Use yarn for lines

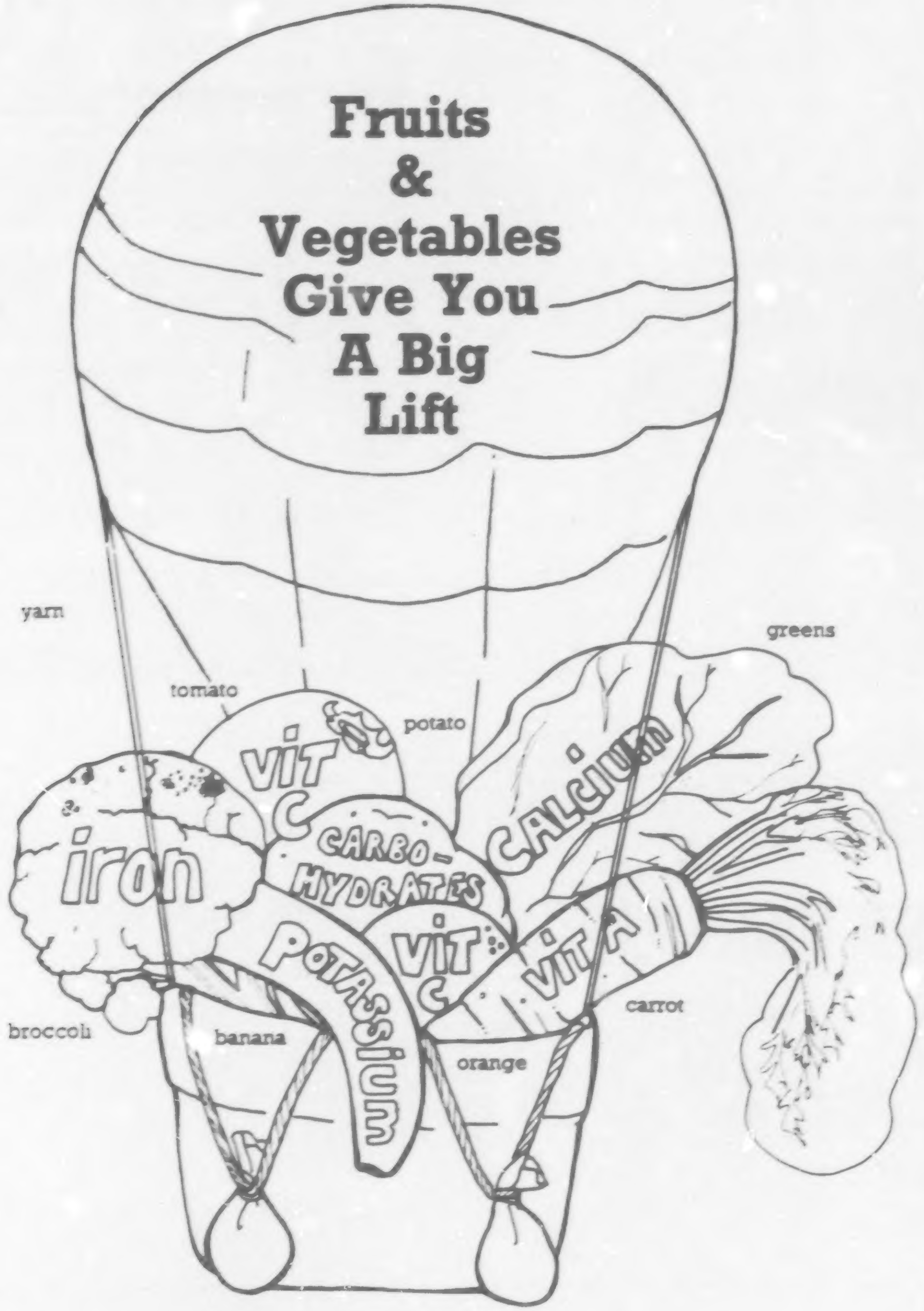
Use construction paper for notes and treble clef

Put magazine picture of salad on each note

184

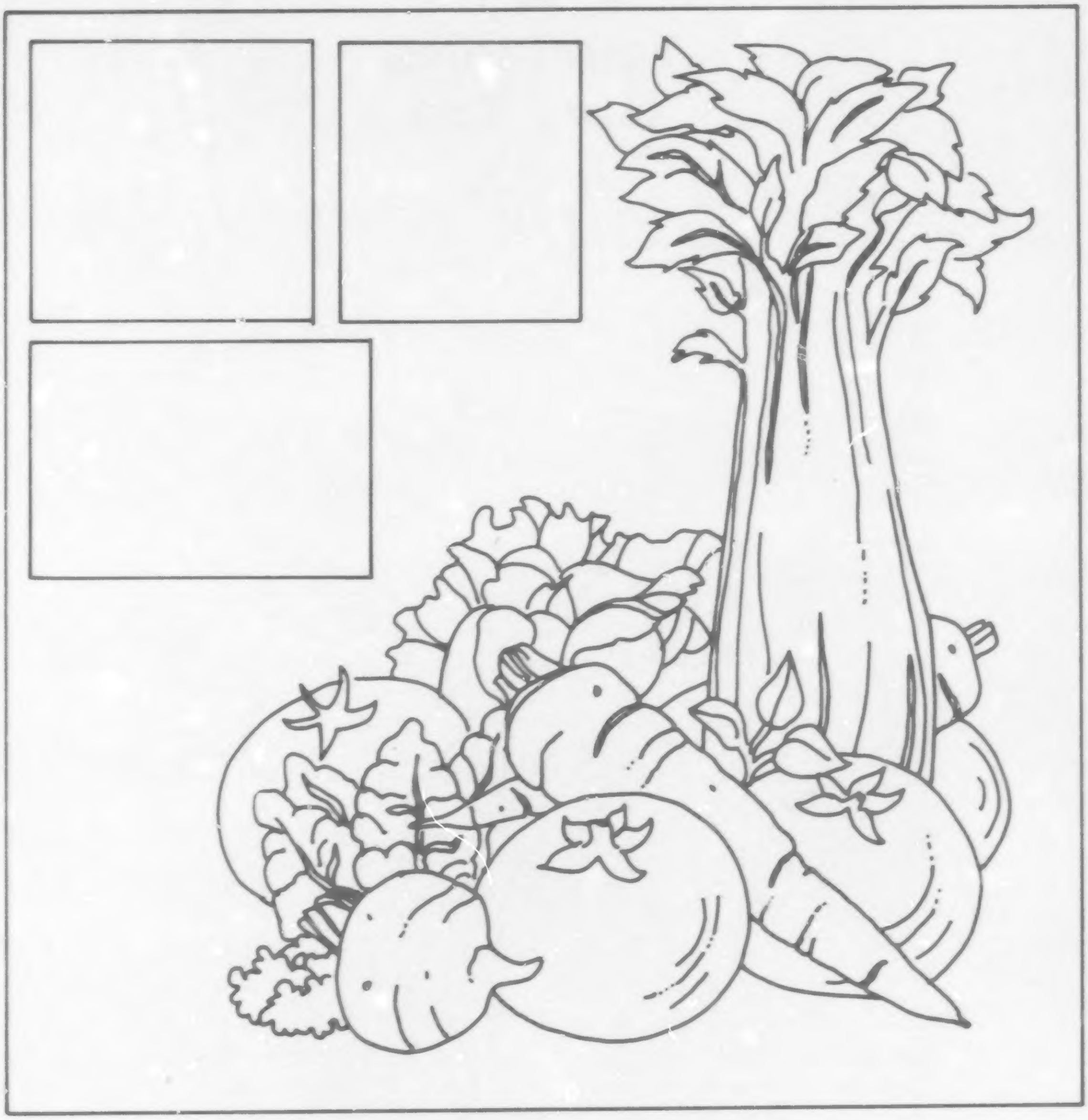
185

Bulletin Board Idea


construction paper
Fruits & Vegetables Give You A Big Lift
yarn
greens
tomato
potato
VIT C
CALCIUM
iron
CARBO-HYDRATES
POTASSium
VIT C
VIT A
carrot
broccoli
banana
orange

WHAT'S COOKING IN VEGETABLE LAND?

Suggestion: Display pictures of prepared salad and vegetable dishes around this cluster of vegetables, cut from construction paper.



UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 4: Fruits and Vegetables

INFORMATION SHEETS

I. Terms and definitions

- A. **Cellulose** - a carbohydrate that constitutes the main part of the cell walls of plants; not completely digestible
- B. **Pectin** - a carbohydrate found in fruits which aids in the setting of jellies
- C. **Dehydrated** - with water removed
- D. **Legume** - edible seeds that grow in a pod including hard beans, split peas and lentils
- E. **Chlorophyll** - green pigment in plants
- F. **Carotene** - source of vitamin A found in deep yellow and orange fruits and vegetables
- G. **Drupes** - fruits with pits
- H. **Pomes** - fruits with cores
- I. **Flavones** - pigments in white vegetables
- J. **Tropical** - from warm, moist climates near equator
- K. **Enzymatic browning** - darkening of fruits and vegetables when exposed to the air
- L. **Aspic** - a jellied mold of meat, fish or vegetables
- M. **Emulsion** - a substance in which the oil is divided into very small droplets which become coated with another substance that prevents them from separating
- N. **Bromelin** - enzyme in fresh and frozen pineapple
- O. **Stabilizer** - an ingredient which acts as an emulsifying agent to help oil stay in suspension
- P. **Compote** - a combination of several kinds of fruit, usually cooked dried fruits

II. Contribution to the diet

(NOTE: Fruits and vegetables are considered to be nutrient dense foods.)

A. Vitamins - especially high in Vitamins A and C, although different fruits and vegetables have different amounts; many also provide riboflaven and thiamine.

Ex: High in Vitamin C include: citrus fruits, cantaloupes, strawberries, cranberries, papayas, guava, mangoes, kiwi fruit, broccoli, green pepper, dark green leafy vegetables, tomatoes, raw cabbage, cauliflower, brussels sprouts, and asparagus

Ex: High in Vitamin A include: apricots, cantaloupes, mangoes, persimmons, papayas, watermelons, carrots, broccoli, spinach, kale, sweet potatoes, winter squash, parsley, and most dark green and deep yellow vegetables

B. Minerals - also contain minerals in various amounts such as potassium, zinc, phosphorus, magnesium, and calcium

Ex: Oranges and bananas are especially high in potassium

C. Proteins and fats - fruits contain a very small amount of protein and fat. (The two exceptions are the avocado and coconut which contain a high amount of fat.) All vegetables contain some protein although amounts may be small, and very little fat. Dried vegetables such as peas and beans contribute large amounts of protein although these are usually not complete proteins.

D. Carbohydrates - sugar, cellulose, pectin, and starch are found in fruits and vegetables in varying amounts. Cellulose is found in the cell walls of fruits and vegetables and is an important source of fiber.

E. Recommended amounts - Individuals should eat four or more servings of fruits and vegetables each day; one of these should be a good source of vitamin A and one a good source of vitamin C.

III. Selecting and buying

A. Kinds (AS 1, 2, 3, and 4) (TM 1 and 2)

1. Fruits (See The Foods Book, The World of Food, and USDA pamphlets for detailed description and pictures.)

a. Pomes (with cores) - apple, crabapple, pear, quince

b. Drupes (with pits) - apricot, cherry, nectarine, peach, plum

c. Berries - blackberry, blueberry, cranberry, currant, gooseberry, grape, raspberry, strawberry

d. Citrus - citron, grapefruit, kumquat, lemon, lime, orange, tangerine, tangelo

e. Melons - cantaloupe, casaba, honeydew, muskmelon, Persian, watermelon

f. Tropical - Avocado, banana, date, fig, guava, kiwi fruit, mango, papaya, persimmon, pomegranate, pineapple, plantain (sometimes served as a vegetable)

2. Vegetables (See The Foods Book and The World of Food references and USDA pamphlets for detailed description and pictures)

a. Roots, bulbs, and tubers - beet, carrot, garlic, onion, parsnip, sweet potato, turnip, radish, salsify, rutabaga, artichoke (Jerusalem) shallots, leeks, chives

b. Stem - asparagus, celery, mushroom, rhubarb, kohlrabi

c. Leaf - Brussels sprout, cabbage, chard, kale, lettuce, parsley, spinach, water cress, Chinese cabbage, collards, greens

d. Flower - broccoli, cauliflower, artichoke (French/globe)

e. Seed - bean, corn, lentil, pea, soybean

f. Fruit - cucumber, eggplant, okra, pepper, squash, tomato

B. Forms (AS 5)

1. Fresh

a. At peak of quality and least expensive when in season

b. Sold individually, by weight or by volume (the trend is to sell by weight)

c. High quality fruits and vegetables look fresh, firm and bright in color, free from blemishes, neither underripe nor overripe.

d. Some fruits and vegetables have special characteristics

1) Grapefruit, oranges, and other fruits used for juice should be heavy for their size.

2) Ripe cantaloupes, honeydews, and pineapples have a fragrant aroma.

3) Berries that are small to medium in size usually have the best flavor.

4) Heads of cabbage and the flower clusters on broccoli and cauliflower should be compact.

5) Squash, cucumbers and tomatoes should be heavy for their size.

6) Asparagus and celery stems, snap beans and wax bean pods should be brittle.

e. Fresh fruits and vegetables are not usually graded for quality; a few states require packaged products be graded; a USDA shield means produce was packed under government inspection; US fancy and US No. 1 are top grades.

f. When comparing price, consider that some waste may be involved when preparing (stems, peels, leaves, etc.).

g. When considering preparation time, consider that fresh forms may require longer cooking, peeling, stemming, washing, etc.

2. Frozen

a. Frozen fruits are very much like fresh in color and flavor but the texture may differ; frozen vegetables are very much like fresh in color, flavor and texture.

b. Come in boxes or plastic bags

c. May be frozen separately or in combination with other fruits and vegetables, with sugar, syrups, butter sauces, preservatives, etc.

d. Frozen fruits and vegetables usually cost more than other forms; whole fruits are more expensive than sliced, cubed, sauces, etc.

e. Select packages that are clean, firm, and give no indication of previous thawing.

f. Be sure all frozen items are purchased last in the grocery store and put in heavy bags to prevent thawing; store immediately.

g. Frozen fruits and vegetables usually require little time and energy in preparation.

3. Canned

a. Usually the least expensive form of fruits and vegetables

b. Available in whole, halved, sliced, cubed, stewed, pieces, and sauce forms with the smallest pieces usually the least expensive

c. Fruits are available in water-pack, light syrup, heavy syrup, artificial sweetener, etc.

d. Canned fruits and vegetables have a long shelf life (longer than fresh and frozen).

e. Cans with slight dents may be good buys at lower prices, but avoid badly dented cans or bulged cans which indicate food may be spoiled.

f. Before buying fruits or vegetables in glass jars, check the lid to make sure it is tight.

g. Canned fruits and vegetables are ready to eat from the can or with slight heating.

h. Most fruits and vegetables are packed according to quality but not all labels show a grade.

i. When a manufacturer follows the Department of Agriculture's standards of quality, the container is labeled Grade A (Fancy), Grade B (choice), or Grade C (standard).

j. All grades are equally nutritious but the higher-grade fruits and vegetables will have a better appearance and flavor and will be more expensive.

4. Dried and dehydrated

a. Concentrated source of nutrients

b. Sold in boxes or plastic bags

c. Some may be eaten as is from the package (raisins, prunes, apricots).

d. Some require soaking for faster cooking (especially legumes such as dried beans). (See Lesson 7.)

e. Some are faster to prepare than fresh, such as instant potatoes.

f. Save space and generally have a long shelf life

C. General guidelines in buying

1. Choose the highest quality at the lowest price.

2. Compare costs of the different forms and choose the best form and quality for the purpose.

3. Read labels.

4. Know how vegetables are sold in your area (pound, head, bushel, etc.).

5. Know what qualities to look for in fruits and vegetables.

6. Know when specific fruits and vegetables are in season.

7. Buy according to storage facilities.

IV. Planning, serving, and preparation (AS 6)

A. General guidelines for attractiveness and appeal

1. Plan to serve vegetables and fruits of different but harmonious colors at a meal. (AS 7)

    a. Green - peas, green beans, lima beans, asparagus, celery, broccoli, brussels sprouts, spinach, green cabbage

    b. Yellow - carrots, wax beans, corn, pumpkin, squash, sweet potatoes, yellow turnips

    c. Red - beets, red cabbage

    d. White - potatoes, kohlrabi, parsnips, cauliflower, onions, leeks

2. To make meals more appetizing, serve no more than one strong flavored fruit or vegetable at a meal. (For example, carrots served at the same meal with cauliflower might be a better choice than yellow turnips served with cauliflower.) (AS 8)

    a. Mild flavor - peas, green beans, asparagus, lima beans, celery, spinach, carrots, wax beans, corn, squash, sweet potatoes, kohlrabi, parsnips, potatoes, beets

    b. Strong flavor - cabbage, cauliflower, broccoli, brussels sprouts, yellow turnips, rutabagas

    c. Very strong flavor - onions, leeks

3. For variety of nutrient value as well as color, shape, form, and texture, it is best to serve vegetables from different parts of the plant at a meal. (For example: Corn and lettuce would be a better choice than slaw and lettuce.)

    (See chart in Selecting Vegetables section)

4. For variety, it is best not to repeat a vegetable in a different form during the same meal. (For example: Do not serve a tomato juice appetizer and spaghetti with tomato sauce at the same meal or do not serve pineapple chunks in the salad and pineapple upside-down cake for dessert.)

5. Try to vary the method of preparation. (For example: serve potatoes boiled, baked, fried, scalloped, au gratin, etc. instead of always mashed.)

6. Serve less common fruits and vegetables for variety.

B. Guidelines for preparing (JS 1)

1. Prepare raw fruits just before serving to prevent exposure to air and vitamin loss.
2. Cook fruits and vegetables in a covered pan for minimum length of time to prevent vitamin loss.
3. Serve raw whenever possible.
4. Use as little water as possible when cooking to prevent loss of water soluble vitamins (exceptions are starchy vegetables and strong-flavored vegetables).
5. Save cooking liquid to serve with food, make sauces, gravies, soups, or stews.
6. Serve and cook fruits and vegetables with the skin on whenever possible; more vitamins and minerals are located near the skin, the skin prevents nutrients from escaping, and provides good fiber (cellulose for digestion).
7. When peeling, keep the peel as thin as possible.
8. To prevent darkening of fruits and vegetables (enzymatic browning) when exposed to the air, prepare immediately before serving or sprinkle with ascorbic acid (lemon juice).
9. Do not soak fresh fruits and vegetables if possible, to prevent loss of water soluble vitamins.
10. Because cooking with sugar strengthens the cell walls of fruits, add sugar after cooking when making applesauce, rhubarb sauce, etc.; when making stewed fruits and the whole fruit is desired, add sugar at beginning of cooking period.
11. Cook fruits and vegetables just until fork tender; do not overcook.
    a. Chlorophyll is affected by heat and will lose color when overcooked; use small amount of water with lid off for first few minutes of cooking.
    b. Carotene is not destroyed by heat but soaks into the water when overcooked.
    c. Flavones soak into water and vegetables turn yellow or gray when overcooked.
12. When cooking, keep pieces as large as possible to avoid surface exposure to water, heat, and air.
13. Cook canned vegetables in the liquid in which they were canned.

14. When cooking vegetables, have water boiling before adding vegetable.

15. Red vegetables will turn purple when cooked in water which is alkaline; to prevent this, add a small amount of lemon juice or vinegar to the water; use only a small amount of water and cook just until tender with pan covered.

16. Strong-flavored vegetables should be covered with water and cooked in uncovered pan for a short time so some of the strong flavor escapes in water and air.

17. Baking soda destroys nutrients and should not be added to vegetables (even though it may help retain green color and shorten cooking time).

18. When cooking starchy vegetables in water, use sufficient water to just cover the vegetables.

C. Fruit serving and cookery methods

1. Fresh (raw) - whole, wedges, slices, etc.

   NOTE: Dried fruits may require soaking and longer cooking. For more information see Lesson 7. (examples-stewed prunes, fruit compote)

2. Cooking in liquid

   a. Cooked in sugar syrup

      1) 2-1 ratio of water to sugar

      2) Use low temperature.

      3) Cook just until tender and translucent.

      4) Serve warm or chilled.

   b. Cooked in water - use as little water as possible. Cook over low heat until tender, then add sugar.

3. Baking (apples, pears, bananas)

   a. Baked in skin

   b. Baked without skin

   (NOTE: Use of microwave oven can save time and nutrients.)

4. Frying

   a. Sauteed in small amount of fat

b. Batter coated and deep-fat fried

c. Should be tender but retain shape

5. Broiling (bananas, grapefruit, pineapple slices)

a. May sprinkle with brown sugar or honey before broiling

b. Watch carefully and do not overcook.

6. In baked products (pies, cakes, quickbreads)

D. Vegetable serving and cookery methods (JS 3) (HO 1)

1. Fresh (raw) - slices, whole, etc.

2. Cooking in water

a. Wash and trim bruised areas, stems, etc.

b. When peeling, use a vegetable scraper rather than paring knife to retain more nutrients; cook unpeeled if possible.

c. Add salt, if desired, to small amount of water and bring to a boil.

d. Add vegetables, cover, bring to a boil, and reduce heat.

e. Cook at simmering only until crisp-tender.

f. Drain (save juice) and serve immediately.

3. Steaming

a. Choose young tender vegetables.

b. Place in a steaming basket over simmering water.

c. Tightly cover the pan and steam until tender.

d. Retains nutrients and flavor; may take longer

4. Pressure cooking

(NOTE: Follow directions accompanying the pressure cooker)

a. Cooks quickly

b. Retains nutrients

5. Baking (potatoes, onions, tomatoes, plantains, squash)

a. Retains nutrients

b. Requires longer time (unless microwaved)

c. Bake individually in skins or with a topping in dish.

(NOTE: Use of microwave oven can save time and nutrients.)

6. Broiling
    a. Preheat broiler.
    b. Brush surface with oil or melted fat.
    c. Place under broiler unit and broil until tender.
    d. Watch carefully.

7. Fry
    a. Deep fry
        1) Heat fat in deep pan to 375°F.
        2) Use with batter (eggplants, zucchini, onion rings) or without batter (potatoes).
        3) Lower vegetables carefully into fat using basket or slotted spoon.
    b. Pan fry
        1) Pre-cooked (potatoes)
        2) Raw (onions, potatoes, carrots)
        3) Fry to golden brown.
        4) Drain on paper towels.
    c. Stir fry
        1) Cut into small pieces.
        2) Heat small amount of fat to a high temperature (in skillet or wok).
        3) Add vegetables, stirring to prevent burning.
        4) Cook 3-5 minutes until fork tender.

8. Creamed
    a. Add cooked, seasoned vegetables to hot medium cream sauces
    b. Use leftover vegetables in this way.

9. Scalloped and au gratin (potatoes, corn)

10. Glazed (carrots, parsnips, sweet potatoes)
    a. Cook in sauce of fat, brown sugar, and water in frypan over low heat.
    b. Cook until tender and well-coated.
11. Braising (panning)
    a. Cut into slices or pieces.
    b. Melt small amount of fat in skillet.
    c. Add vegetable and small amount of liquid.
    d. Cover and cook over low heat.
    e. Stir often to prevent sticking.
    f. Cook until just tender.

E. Using leftover fruits and vegetables
    1. Marinate cold cooked vegetables in a tangy salad dressing and serve as a salad on a bed of lettuce.
    2. Add leftover fruit to gelatin salads.
    3. Make into fritters.
    4. Put leftover vegetables in a baking dish, mix with sauce or condensed soup, top with crumbs or grated cheese and bake.
    5. Add leftover vegetables to soup or stew.
    6. Add leftover vegetables to a quiche or omelet.
    7. Make leftover fruit into a sauce or topping for ice cream or cake.

F. Preparing and serving fruits and vegetables in salads (AS 9) (JS 4) (HO 2)
    1. Types of salads
        a. Green salads
            1) Greens (celery, lettuce, Boston Bibb, romaine, chicory, endive, chard, escarole, dandelion greens, spinach, watercress, chinese cabbage, chives, parsley)
            2) Dressing
            3) Accents (croutons, bacon bits, grated cheese, mushrooms, etc.)

b. Fruit salads

  1) One fruit or combination (fruit compote)

  2) Fresh, frozen, canned, or dried fruits

  3) Whole fruits, slices, or chunks

  4) With dressing or in natural juices

c. Vegetable salads

  1) Raw or cooked vegetable or combination (tomatoes, cabbage, cucumbers, green peppers, radishes, carrots, celery, cauliflower, zucchini, broccoli, turnips, artichokes, potatoes)

  2) Dressing

d. Meat, fish, poultry and egg salads

  1) Ground or chunked meat, fish, poultry or egg served alone with a dressing

  2) Served with dressing in combination with greens or vegetables

e. Gelatin salads (molded)

  1) Fruit juice, with unflavored gelatin, vegetable juice with unflavored gelatin (aspic) or commercial flavored gelatin

  2) Fruits or vegetables (chopped, whole, mixed or individual)

f. Frozen salads

(NOTE: Because of the richness and high calories, serve only occasionally)

  1) Cut up fruit, vegetables or meat

  2) Whipped cream or mayonnaise base

g. Hot salads (hot potato salad, wilted lettuce, hot cole slaw)

  1) Vegetables

  2) Hot dressing

2. Salad dressings (HO 3)

a. French-type - temporary emulsion of salad oil, vinegar or lemon juice, and seasonings (mustard and paprika may be added for color, flavor and as a stabilizer)

  1) French

  2) Italian

  3) Vinegar and oil

  4) Russian (thinner type)

  5) Roqueforte (thinner type)

b. Mayonnaise-type - permanent emulsion of oil, vinegar or lemon juice, seasonings and egg

  1) Russian (thicker type)

  2) Thousand Island

  3) Plain mayonnaise or creamy

  4) Roqueforte cheese (thicker type)

c. Cooked-base dressing - vinegar or fruit juice, flour or cornstarch and sometimes egg yolk, cooked until thickened and seasoned

3. Ways to serve salads

  a. Appetizer - light, tangy, in small portion (green salad is good choice)

  b. Accompaniment - any salad (except hearty) which goes with main course

  c. Separate course - any salad served separately with crackers or melba toast

  d. Main course - hearty salads which contain vegetable or fruits and protein food to make a complete meal (ex. chef salad, chicken salad)

  e. Garnish - (pickled beets, onion slice, cherry tomatoes, etc.)

  f. Dessert - salads containing fruit such as fruit salads, frozen salads or gelatin salads

4. Planning, preparation and serving guidelines (HO 4) (TM 3)

  a. General

1) Plan colors and arrangements which are pleasing to the eye.

2) Use fresh, chilled ingredients that retain color, flavor, crisp texture and food value.

3) Choose a salad which will complement other foods in meal.

4) Cut ingredients so they are all about the same size and large enough to be recognized.

5) Firm vegetables are easier to eat if they are cut or shredded.

6) Tear salad greens; cutting with a knife bruises them, causing possible loss of nutrients and browning.

7) Prevent fruits from darkening by placing them in salad dressing or citrus juice as soon as they are cut.

8) Usually heap (toss) salad loosely, piled higher in center of plate or bowl. (Should not look flat and should not extend to edge of plate.)

9) Garnish salads.

10) To keep salads crisp and fresh looking, add seasonings and dressings at the last possible moment. (NOTE: Meat, potato and pasta salads should be mixed with dressing ahead of time to improve flavor.)

11) Do not use too much dressing on a salad, as it masks flavors and makes salad soggy.

12) A frozen salad should soften slightly before serving.

b. Preparing gelatin (molded) salads (HO 5)

1) Cook fresh or frozen pineapple before adding to a gelatin salad. This will destroy the enzyme bromelin which would otherwise keep the salad from jelling.

2) Use more gelatin in salads containing citrus juices or tomato juice since acids weaken gelatin.

3) Use moderate amounts of vegetables or fruits to avoid weakening the gelatin.

4) Allow the gelatin to thicken slightly before adding other ingredients; this prevents them from sinking to the bottom or rising to the top.

5) To mold a gelatin salad into layers, allow the gelatin to set slightly before adding each new layer.

6) To unmold a gelatin salad, cover the inverted mold with a warm, damp cloth for a few seconds or quickly dip the mold into warm water and invert on serving plate.

7) Garnish.

V. Care and storage (HO 6)

A. Sort and throw out any damaged fresh fruits and vegetables immediately after purchase.

B. Wash and dry (drain) all fresh fruits and vegetables (except berries and cherries) to remove any dirt or insecticide residue.

C. Store most fruits (except bananas) and vegetables in the refrigerator, preferably in plastic bags or crisper bin; a few vegetables such as sweet potatoes, onions, pumpkins, potatoes, and squash need only to be stored in cool dry place. (NOTE: As a general rule, those growing above ground should be stored in refrigerator, and if they have a high water content they should be in an air-tight container; those growing underground can be stored in a cool dry place.

D. Allow any unripe fruit or vegetable to ripen before refrigeration.

E. Store frozen fruits and vegetables in the freezer; can usually keep successfully 8-12 months.

F. Use defrosted fruit and vegetables immediately.

G. Store unopened canned fruits and vegetables in a cool, dry place; they will keep quality for 1 year, after which they begin to lose flavor, color and food values.

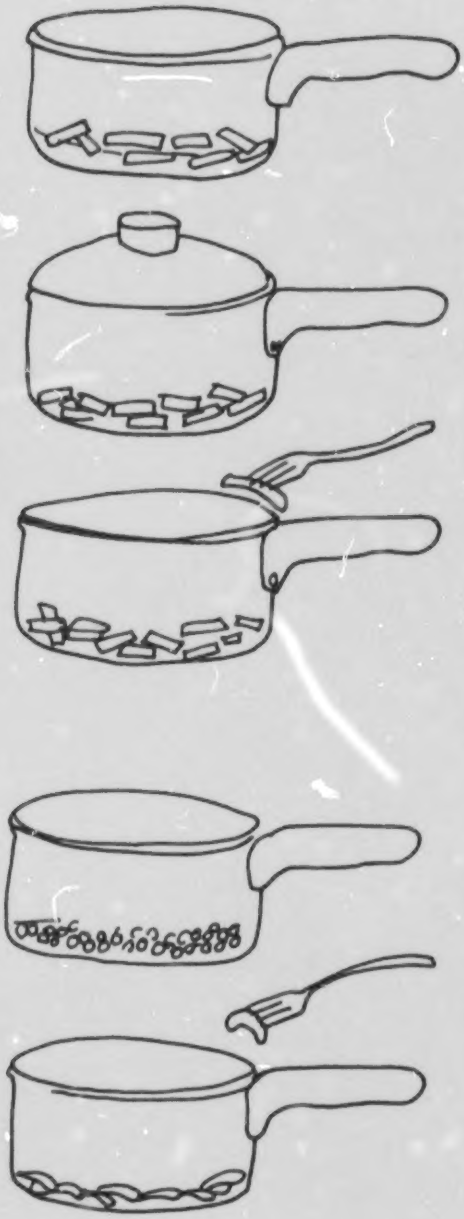
H. After opening, store canned fruits and vegetables in the refrigerator in an airtight container; use within 2-3 days.

I. Dried fruits and vegetable should be kept in tightly covered containers in a cool, dry, dark place; will keep 6 months (NOTE: During warm, humid weather store them in refrigerator).

J. After cooking, store dried fruits and vegetables in the refrigerator and use within a few days.

(AS 10-Review)

How to Cook Vegetables



Use small amount of salted water and simmer.

Mature root vegetable such as potatoes and beets should be covered with water.

Use tight-fitting lid.

Cook just until fork tender.

To cook red vegetables in hard water areas, add a small amount of vinegar or lemon juice to prevent discoloration.

Serve vegetables hot and with the cooking liquid if possible. Otherwise save for gravies, soups, stews, etc.

Signs of Overcooking

Green vegetables turn dull brownish-green.

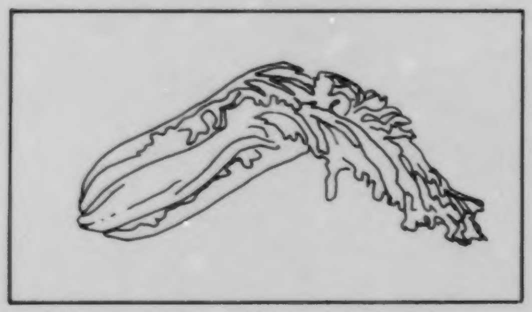
White vegetables turn dark gray.

Yellow vegetables lose color and water turns pale orange yellow.

Vegetables get soft and mushy.

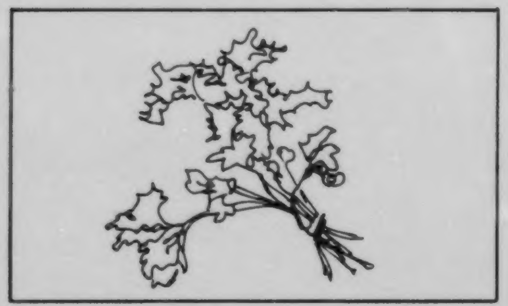
HO 2

Know Your Greens



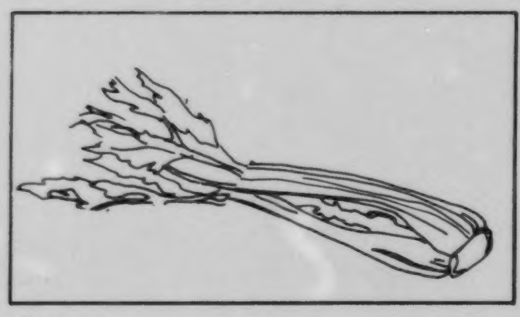
Chinese Cabbage

Chinese cabbage has a compact, long head with thin, wrinkled, pale green leaves and broad midribs. The flavor is a cross between those of cabbage and celery.



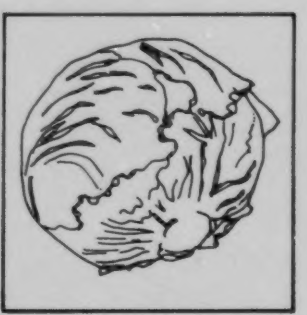
Parsley

Parsley has curly, lacy leaves of bright green. It has a fresh zesty flavor and lots of vitamins. It is often used as a garnish.



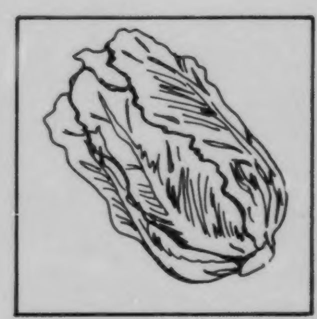
Celery

Crisp stalks, white, medium green in color. Both stalks and leaves are used in salads.



Iceberg Lettuce

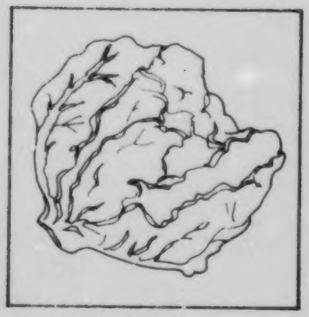
The most popular. Compact heads, tightly packed leaves. Used as wedges or torn for salads. Light green in color, mild flavor.



Romaine

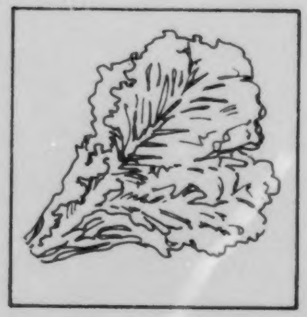
Elongated head. Crisp "spoon-shaped" leaves. Sharp, nutty flavor that is excellent with tomatoes. Dark green in color.

Know Your Greens (cont'd)



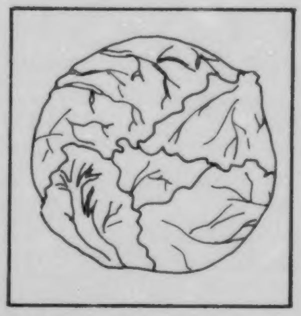
Bibb Lettuce

Deep green leaves are sweet and tender. Use the whole leaves. Outside leaves are rich green. Inside leaves are white.



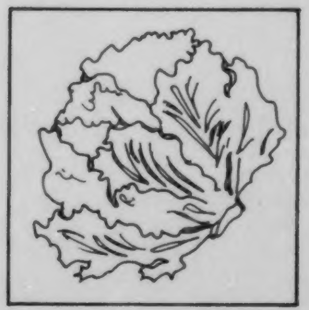
Leaf Lettuce

Crisp and curly, with a light green curly leaf that is very delicate. Red leaf lettuce is deep red on edges, green near stem.



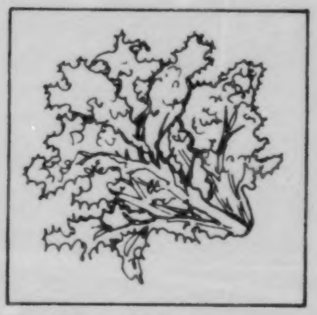
Cabbage

RED cabbage brightens greens. GREEN cabbage is best as slaw. Reddish purple or light-medium green, tougher leaves than lettuce.



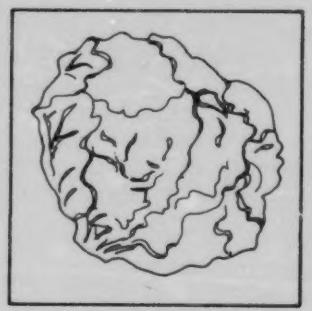
Escarole

Much like endive, but broader leaves, less sharp flavor, milder, bitter. Dark green leaves, edged in yellow.



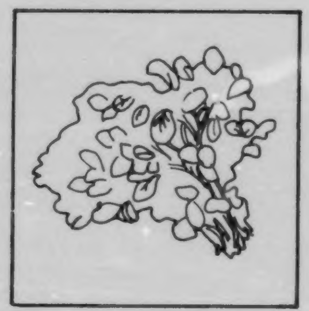
Endive (Chicory)

Curly endive adds dark green color and lacy beauty to your salad. Sharp, tangy flavor.



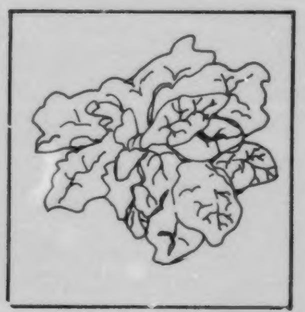
Boston Lettuce

Sometimes called "Butterhead". Tender velvety leaves have a delicate flavor, separate easily.



Watercress

Dark green with small round leaves branching from slender stems. Sharp peppery flavor. High in vitamins, good-looking in the salad or as a garnish.



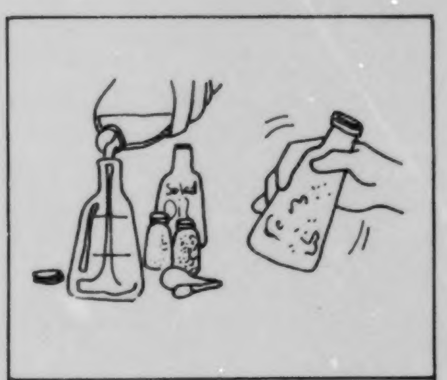
Spinach

Fresh, young spinach adds deep green color, lively flavor, extra vitamins and minerals to your salad, by itself or mixed with other greens.

HO 3

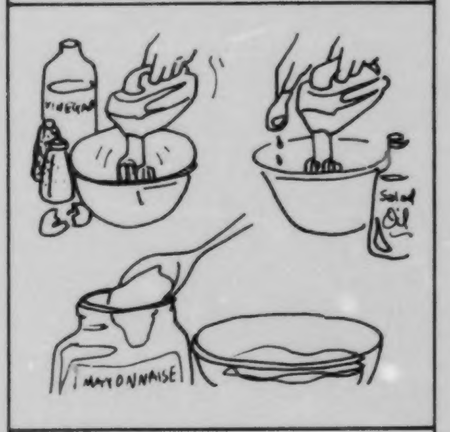
Salad Dressings

French Dressing



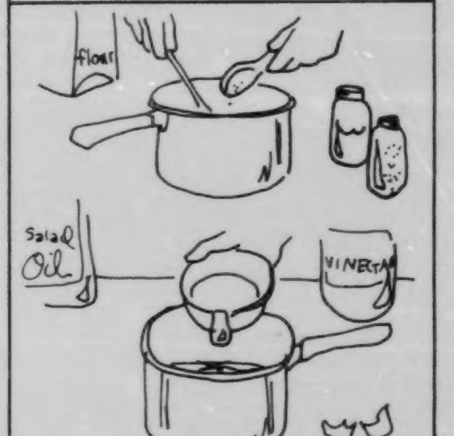
French dressing can be made easily at home. You only need to blend the proper proportion of vinegar, salad oil, and seasonings to make a French dressing. You may include the seasonings of your preference when you make French dressing. Homemade French dressing will separate on standing. You will need to blend the ingredients by shaking the dressing before it is used on salads.

Mayonnaise



Mayonnaise is an uncooked dressing prepared from vinegar, salad oil, seasoning, and egg yolk. The yolk will help to form a permanent emulsion so that the dressing will not separate on standing. The yolk, seasonings, and vinegar are beaten until they are blended. The beating is continued as the oil is added very slowly, at first, drop by drop. As the mixture thickens, slowly increase the amount of oil and continue beating until all of the oil is added and the mayonnaise is thick and smooth.

Cooked Salad Dressing



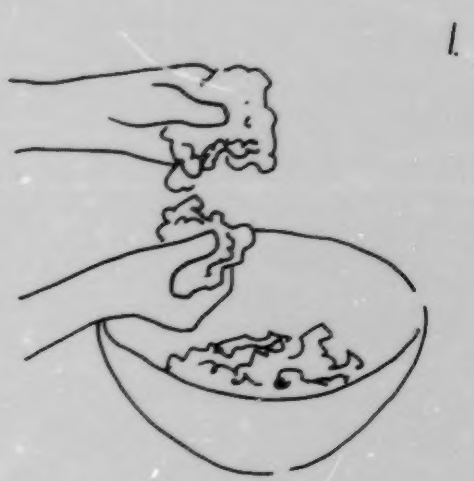
Cooked salad dressing resembles mayonnaise. It is thickened with flour or starch, and usually does not contain large amounts of oil or fat. The flour and seasonings are combined by blending.

The egg yolk and milk or water are blended in. Then, the vinegar is stirred in gradually.

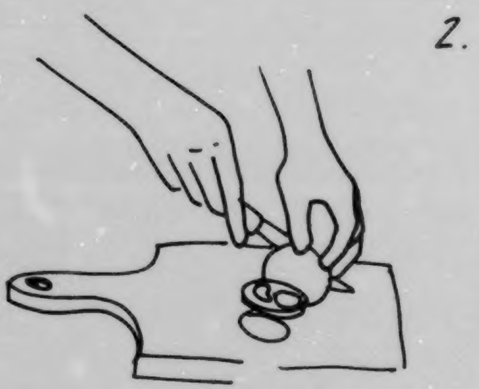
The mixture is cooked over very low heat, with constant stirring until it becomes thickened.

HO 4

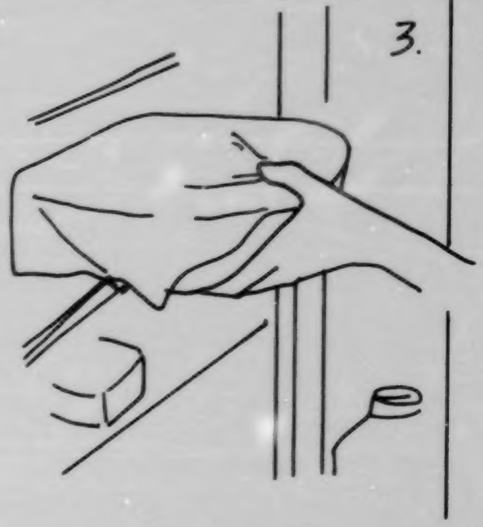
Making the Salad



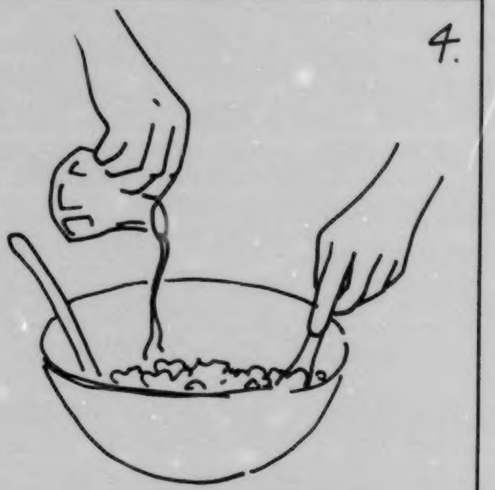
Tear greens into bite-size pieces.



Cut other vegetables, such as tomatoes, and combine with greens.

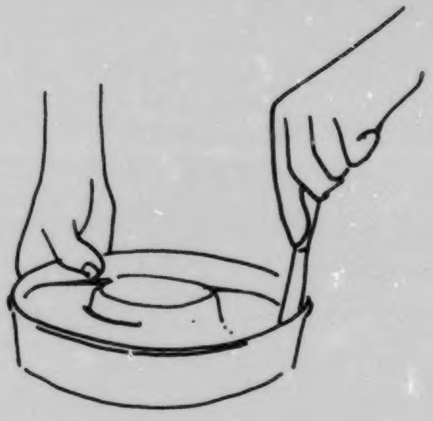


Cover salad vegetables in bowl and refrigerate.

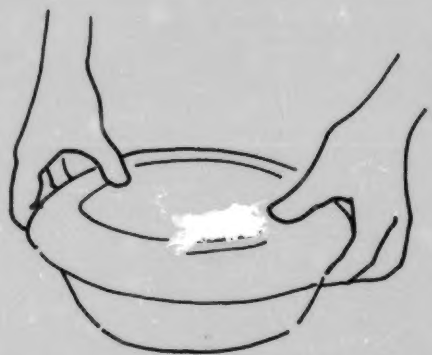


Just before serving; mix salad with dressing.

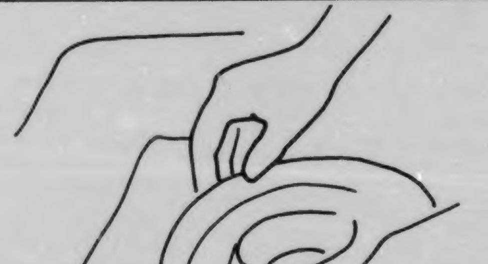
How To Unmold a Gelatin Salad



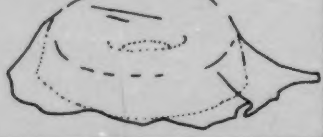
Step 1
Dip a small pointed knife in warm water and run the tip around the edge of the mold to loosen it.

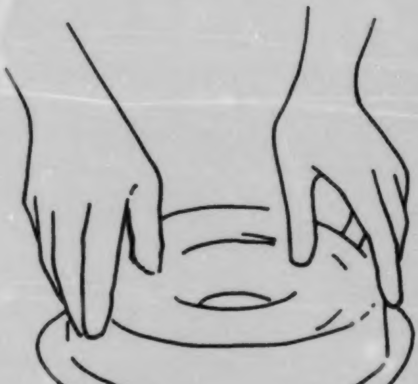


Step 2
Place the plate on top of the mold, invert the plate and mold together, and shake gently to loosen the gelatin.



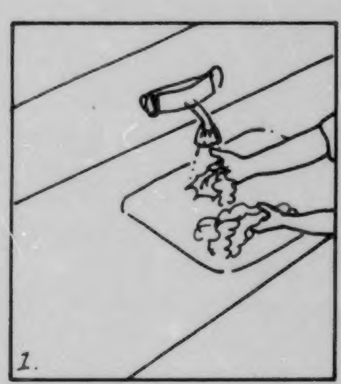
Step 3
Rinse a serving plate in cold water so it will be easier to move the mold to the center of the plate. Dip mold in warm water (do not use hot water) just to the rim of the mold for about ten seconds. Lift from the water, hold upright, and shake slightly to loosen the gelatin from the mold. OR Cover mold with towel dipped in warm water.



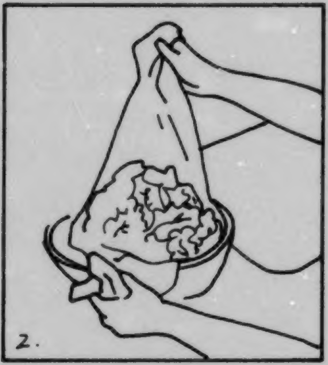


Step 4
Lift off the mold and slide the gelatin into place in the center of the plate. If the gelatin does not release, dip the mold in warm water again.

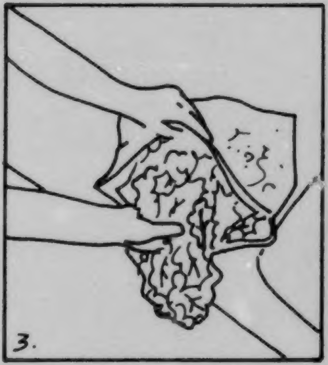
Care of Salad Greens



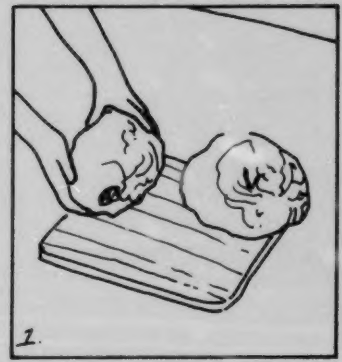
Wash greens under cold running water.



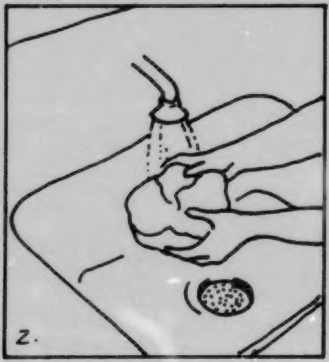
Dry carefully with a towel.



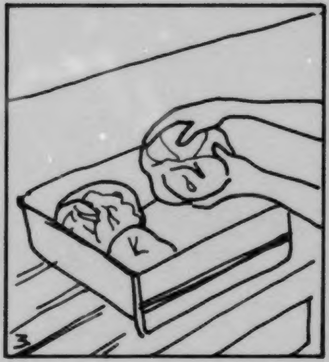
Store in plastic bag in refrigerator.



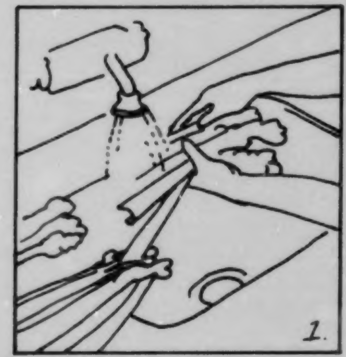
Remove core from head lettuce.



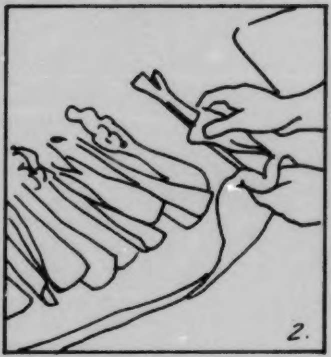
Wash lettuce under cold running water.



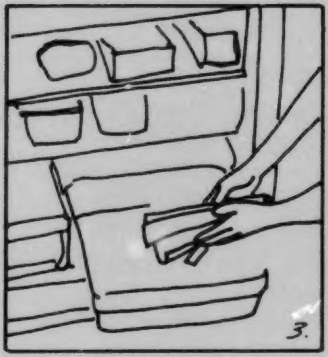
Store in hydrator of refrigerator.



Wash celery stalks under cold running water.



Dry celery with clean towel.



Store in hydrator of refrigerator.

TM 1

How to Select Fresh Vegetables

Buy vegetables that are

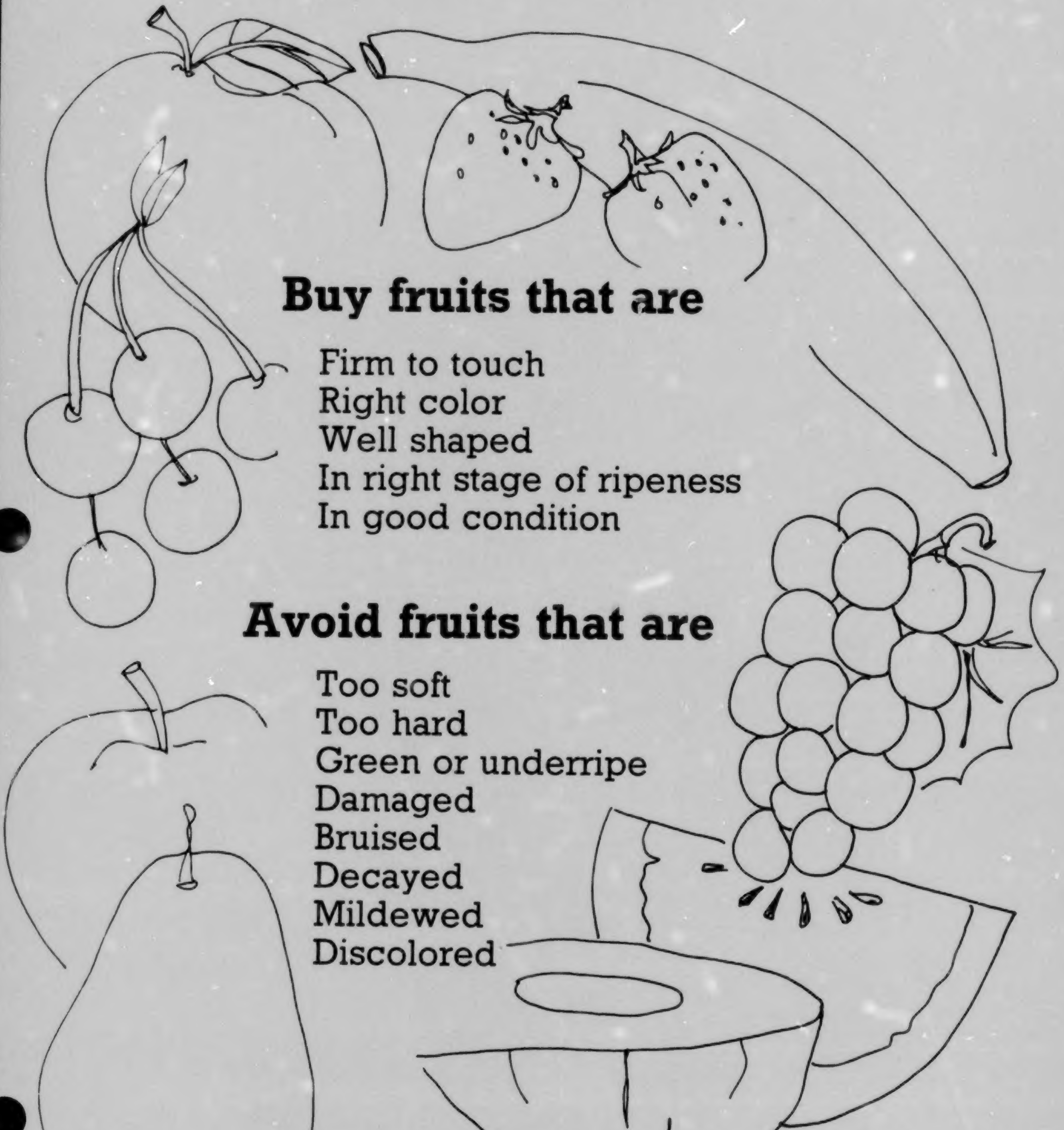
- Right color
- Crisp or firm
- Medium size
- Solid
- Heavy in relation to size

Avoid vegetables that are

- Wilted
- Shriveled
- Too small
- Too large
- Discolored
- Decayed
- Bruised
- Damaged

TM 2

How To Select Fruit



Buy fruits that are

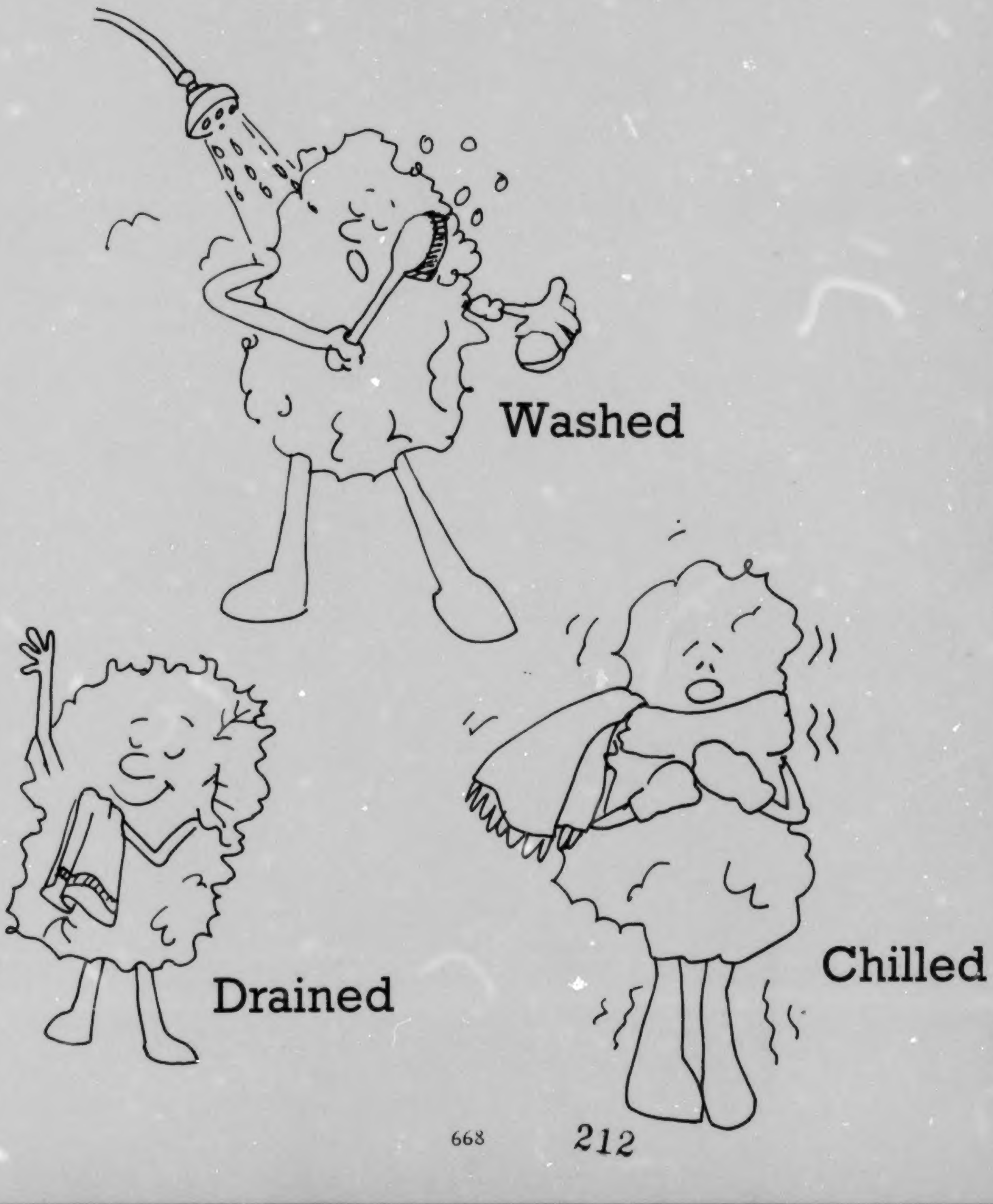
- Firm to touch
- Right color
- Well shaped
- In right stage of ripeness
- In good condition

Avoid fruits that are

- Too soft
- Too hard
- Green or underripe
- Damaged
- Bruised
- Decayed
- Mildewed
- Discolored

Give Proper Care To Salad Greens

Salad Greens Should Be:


Washed
Drained
Chilled

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 4: Fruits and Vegetables

ASSIGNMENT SHEET #1: INTRODUCTORY SURVEY - MIXED VEGETABLES AND FRUITS

"HOW WELL DO YOU KNOW VEGETABLES AND FRUITS?"

Directions: Unscramble the letters below to determine how many fruits and vegetables you can recognize. Your teacher may want to set a time limit to see who can recognize fruits and vegetables the fastest.

1. OTTOPA ____________________
2. PERAGS ____________________
3. HICUZNIC ____________________
4. NAANABS ____________________
5. COODAVA ____________________
6. CHEAP ____________________
7. CLIBOORC ____________________
8. NIPPELPEA ____________________
9. RAKO ____________________
10. TOCRARS ____________________
11. TOUPELACAN ____________________
12. TEBES ____________________
13. LEAK ____________________
14. PLEAP ____________________
15. PNISRSAP ____________________
16. ONINO ____________________
17. BHRAVBR ____________________
18. NSEBA ____________________
19. NIPSHAC ____________________
20. RIPNUT ____________________
21. PARCITO ____________________
22. PEAGFRIRTU ____________________
23. ATERCINNE ____________________
24. RONC ____________________
25. RESPPPE ____________________
26. DOLLARSC ____________________
27. GAPLEGNT ____________________
28. MUBECRUC ____________________
29. RUGASAASP ____________________
30. SRUBELSS
POTSURS ____________________

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 4: Fruits and Vegetables

ASSIGNMENT SHEET #2: FRUITS AND VEGETABLES FROM A TO Z

Directions: In the space beside each letter list as many fruits and vegetables as you can think of beginning with that letter. Some may have lots of listings while others none. Place an F or a V after each name to tell if it is a fruit or vegetable.

A ____________
____
____
____
____

B ____________
____
____
____
____
____
____

C ____________
____
____
____
____
____
____
____
____

D ____________

E ____________
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F ____________

G ____________
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H ____________

I ____________

J ____________

K ____________
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L ____________
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M ____________
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N ____________

O ____________
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P ____________
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____
____
____
____
____

Q ____________

R ____________
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____

S ____________
____
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T ____________
____
____
____

U ____________

V ____________

W ____________
____
____

X ____________

Y ____________

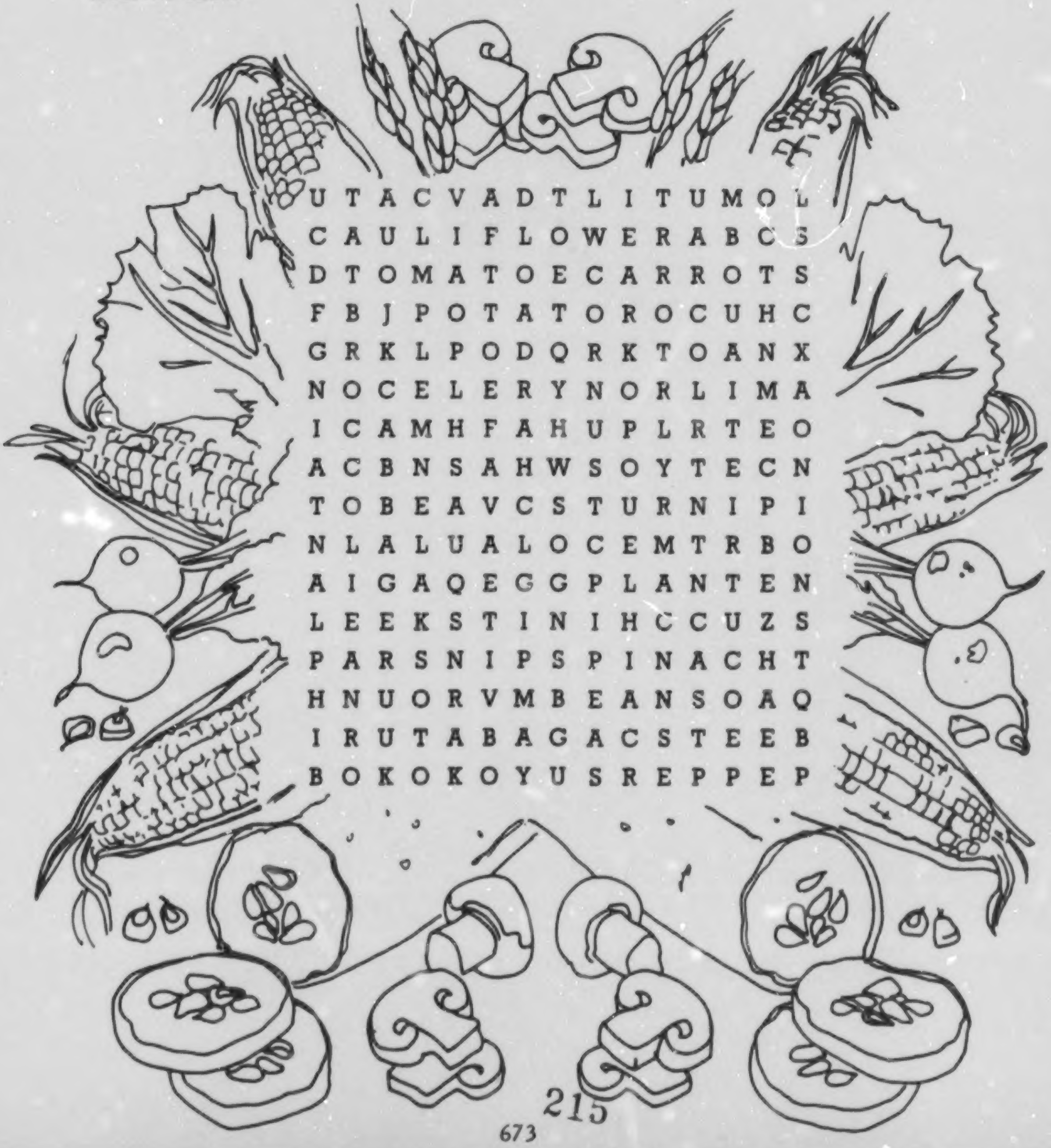
Z ____________

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 4: Fruits and Vegetables

ASSIGNMENT SHEET #3: VEGETABLE SCRAMBLE REVIEW

Directions: The names of 30 vegetables are hidden in the scrambled letters. Circle the names. They appear horizontally, vertically, and diagonally. The words may be read either forward or backward. On another sheet of paper, list and briefly describe each.



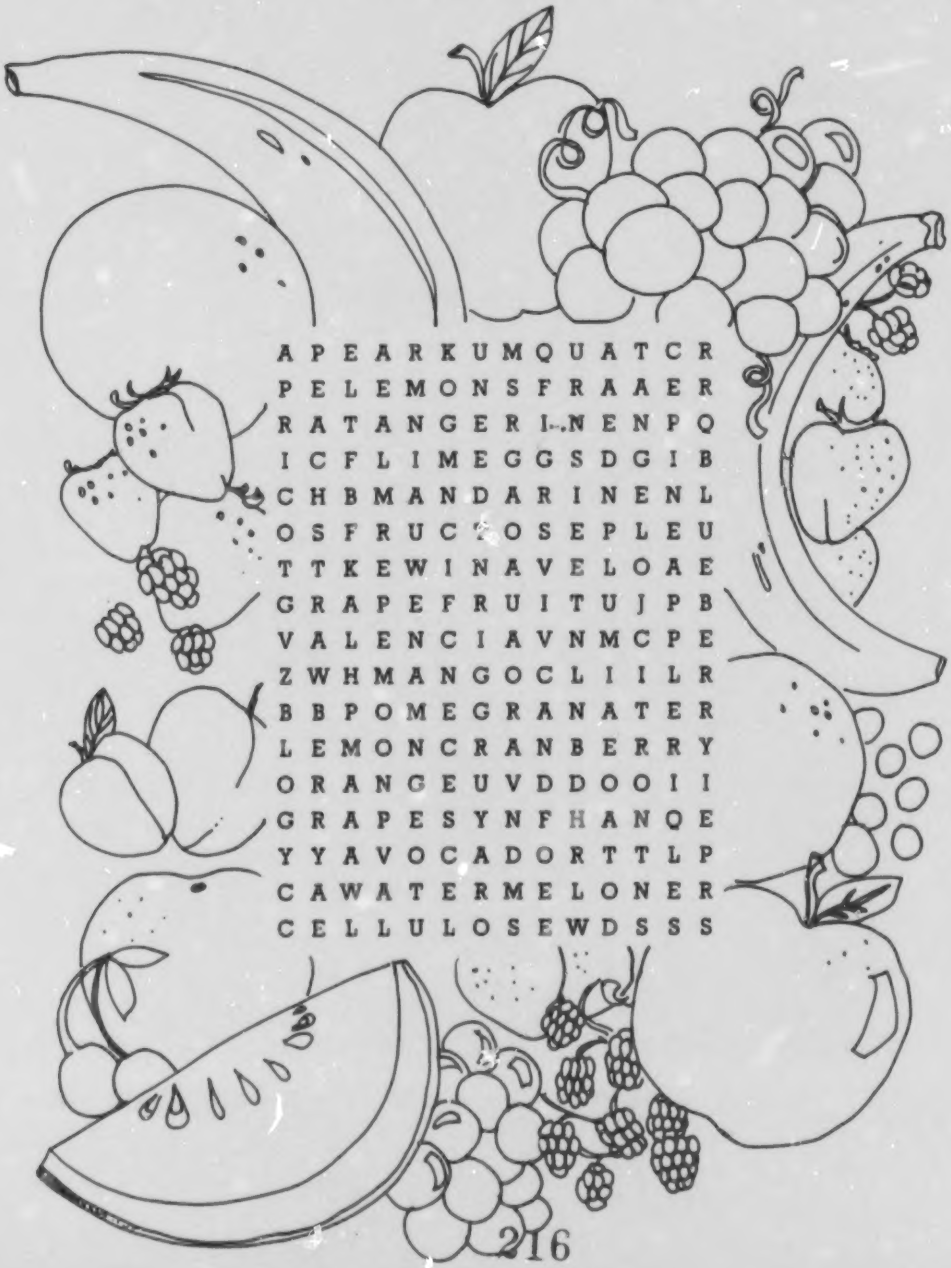
U T A C V A D T L I T U M O L
C A U L I F L O W E R A B C S
D T O M A T O E C A R R O T S
F B J P O T A T O R O C U H C
G R K L P O D Q R K T O A N X
N O C E L E R Y N O R L I M A
I C A M H F A H U P L R T E O
A C B N S A H W S O Y T E C N
T O B E A V C S T U R N I P I
N L A L U A L O C E M T R B O
A I G A Q E G G P L A N T E N
L E E K S T I N I H C C U Z S
P A R S N I P S P I N A C H T
H N U O R V M B E A N S O A Q
I R U T A B A G A C S T E E B
B O K O K O Y U S R E P P E P

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 4: Fruits and Vegetables

ASSIGNMENT SHEET #4: FRUIT SCRAMBLE REVIEW

Directions: The names of 24 fruits are hidden in the scrambled letters. Circle the names. They appear horizontally, vertically, and diagonally, and may be backward or forward. On another sheet of paper list and briefly describe each.



A P E A R K U M Q U A T C R
P E L E M O N S F R A A E R
R A T A N G E R I N E N P Q
I C F L I M E G G S D G I B
C H B M A N D A R I N E N L
O S F R U C T O S E P L E U
T T K E W I N A V E L O A E
G R A P E F R U I T U J P B
V A L E N C I A V N M C P E
Z W H M A N G O C L I I L R
B B P O M E G R A N A T E R
L E M O N C R A N B E R R Y
O R A N G E U V D D O O I I
G R A P E S Y N F H A N Q E
Y Y A V O C A D O R T T L P
C A W A T E R M E L O N E R
C E L L U L O S E W D S S S

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 4: Fruits and Vegetables

ASSIGNMENT SHEET #5: COMPARING FORMS OF FRUITS AND VEGETABLES

Directions: Compare fresh, canned, and frozen foods in appearance, texture, taste, preparation time, and cost. Record your data on the chart below. Check your preference for each item and draw conclusions. Put N/A in column if any form was not available for comparison. (To prepare vegetables, cook and season to taste; serve fruit sliced in its own juice.)

Type of Fruit or Vegetable	Preparation Time	Appearance	Texture	Taste	Cost	Cost per Serving	Preference
Carrots							
Fresh							
Canned							
Frozen							
Green Beans							
Fresh							
Canned							
Frozen							
Corn							
Fresh							
Canned							
Frozen							
Peaches							
Fresh							
Canned							
Frozen							

Conclusions:

1.

2.

3.

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 4: Fruits and Vegetables

ASSIGNMENT SHEET #6: PLANNING FRUITS AND VEGETABLES IN THE MENU

Directions: Below are menus for a family for 6 days with no vegetables or fruits planned. Help out this family by adding appropriate fruits and vegetables in the blank spaces to make the meals attractive, appetizing, and nutritious. You may want to review the guidelines for planning and serving fruits and vegetables in the information pages. Your instructor may want to discuss the criteria on which this assignment will be evaluated before you start.

Day 1	Day 2	Day 3
Breakfast Eggs Baked in Bacon Rings Wheat Cereal Country Breakfast Muffins Coffee or Tea	**Breakfast** Broiled Ham Slice Oatmeal Double-quick Coffee Bread Coffee or Milk	**Breakfast** Delicate Fluffy Pancakes Butter, Maple Syrup Crisp Bacon Coffee or Milk
Lunch Chicken Casserole Italian Bread Sticks Custard Pie	**Lunch** Toasted Cheese Sandwiches Walnut Butter Cake with Butter Icing	**Lunch** Ham Sandwiches Cookies
Dinner Crispy Fried Fish Tartar Sauce Butter Fluffs Chiffon Pie	**Dinner** Fluffy Meat Loaf Catsup Rich Egg Bread Coconut Drop Cookies	**Dinner** Roast Pork Cloverleaf Rolls Ice Cream with Chocolate Marshmallow Sauce
Day 4	**Day 5**	**Day 6**
Breakfast Jelly Omelet Wheat Cereal Cinnamon Coffee Cake Hot Cocoa	**Breakfast** Scrambled Eggs with Ham Popovers Coffee or Milk	**Breakfast** Cheese Waffles Grilled Ham Slice Hot Chocolate
Lunch Chicken-Rice Casserole Tiny Cinnamon Rolls Chocolate Parfait	**Lunch** Cheese Souffle Melba Toast Brownies	**Lunch** Boston Baked Beans Steamed Brown Bread
Dinner Barbecued Spareribs Biscuits	**Dinner** Broiled Chicken Brown n Serve Rolls	**Dinner** Savory Spaghetti Italian Bread Sticks Spumoni Ice Cream

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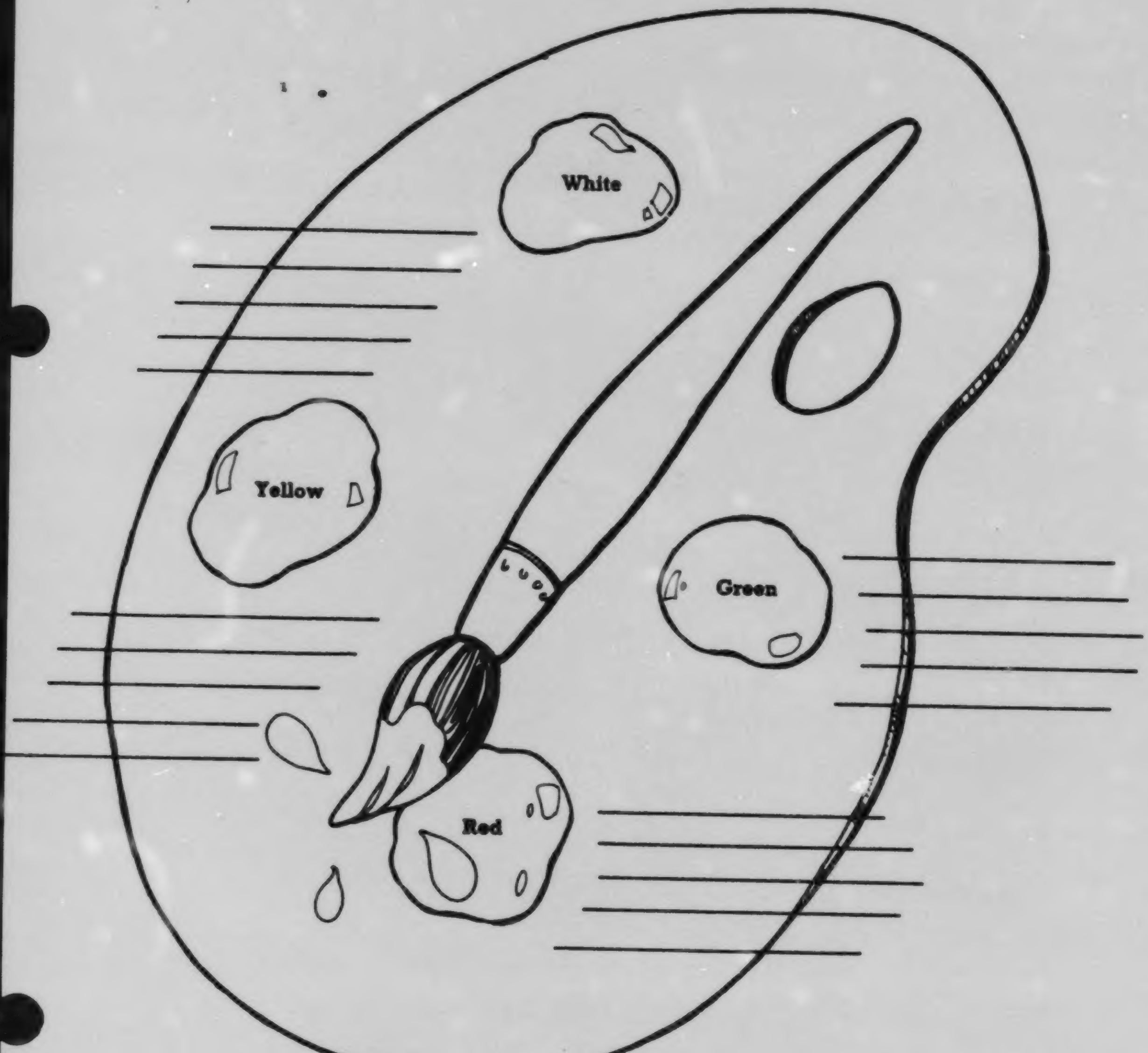
UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 4: Fruits and Vegetables

ASSIGNMENT SHEET #7: BE AN ARTIST WITH VEGETABLES

Directions: Without using your information sheets, write names of vegetables which fit in the appropriate category below - you may wish to color in the white, yellow, red, and green areas.

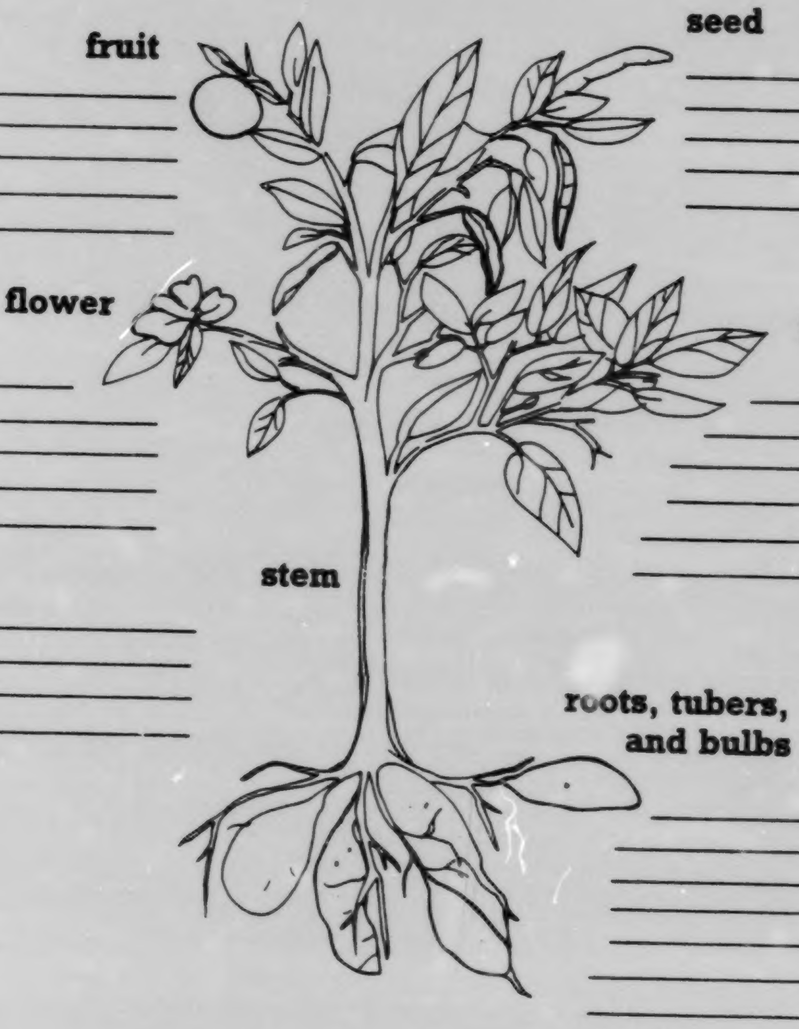


UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 4: Fruits and Vegetables

ASSIGNMENT SHEET #8: WHERE DO VEGETABLES GROW?

Directions: On the diagram, place names of vegetables in the correct places according to how they grow. Do not use your information pages.

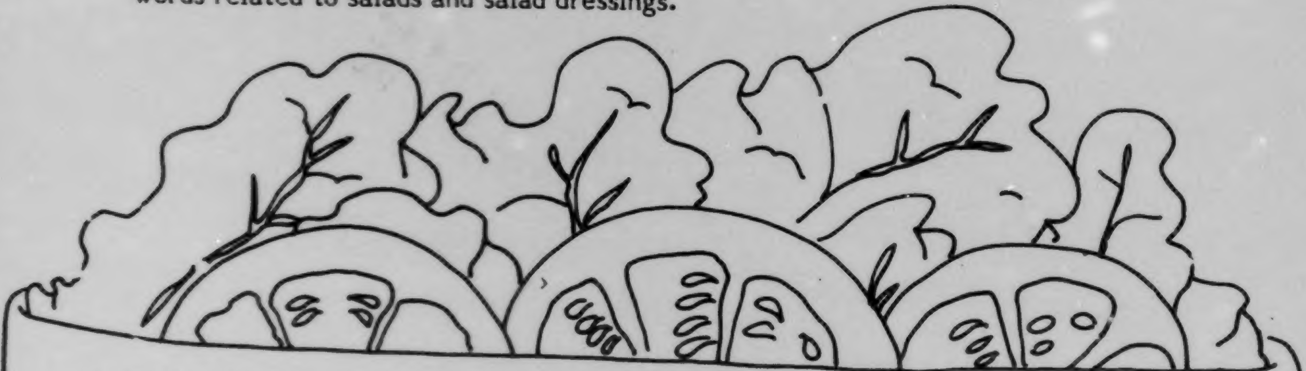

fruit
seed
flower
leaf
stem
roots, tubers, and bulbs

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 4: Fruits and Vegetables

ASSIGNMENT SHEET #9: MIXED SALAD

Directions: Unscramble the letters in each of the following word jumbles to form words related to salads and salad dressings.



1. ENRSEG
○ _ _ _ _ _

2. NASOYEMANI
_ _ _ ○ _ _ _ _ _ _

3. PASIC
○ _ _ _ _

4. DODELM
_ _ _ ○ _ _

5. YOCCHIR
_ ○ _ _ _ _ _

6. ZENMICAT/WORBINGN
_ _ _ _ _ _ _ _ _ _
_ _ _ _ _ _ _ _ _ _

7. SMELUION
○ _ _ _ _ _ _ _

8. HIRANGS
_ _ _ _ _ _ ○

9. TELUCTE
○ _ _ _ _ _ _

10. TRUFI
_ _ _ _ ○

11. MINELROB
_ _ ○ _ _ _ _ _

12. LETGATIN
_ _ _ _ _ _ _ _

13. GINERDSS
_ _ _ _ _ _ _ _

Now arrange the circled letters to form a mystery answer consisting of two words that show why salads are so important.

_ _ _ _   _ _ _ _ _ _

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 4: Fruits and Vegetables

ASSIGNMENT SHEET # 10: "ODD ONE OUT" VEGETABLE AND FRUIT REVIEW

Directions: Each series below contains one vegetable or fruit that does not belong. In each case select the "odd one" and circle.

1.	pear	apples	carrots	corn
2.	apples	pears	oranges	quince
3.	peaches	bananas	melons	spinach
4.	apricots	pears	cherry	plum
5.	cauliflower	turnip	potato	tomato
6.	broccoli	carrot	sweet potato	squash
7.	peach	grape	blackberry	strawberry
8.	peas	corn	beans	lettuce
9.	lemon	pineapple	grapefruit	lime
10.	cauliflower	broccoli	artichoke	aspargus
11.	cantaloupe	pumpkin	casaba	honeydew
12.	endive	escarole	garlic	parsley
13.	bananas	mangoes	tomatoes	papaya
14.	spinach	aspargus	beets	peas
15.	potatoes	turnips	cabbage	broccoli
16.	cucumber	lentils	eggplant	tomato
17.	asparagus	celery	artichoke	rhubarb
18.	beets	celery	carrots	radish
19.	carrots	spinach	broccoli	potatoes
20.	kale	collards	chinese cabbage	mushroom

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 4: Fruits and Vegetables

ANSWERS TO ASSIGNMENT SHEETS

Assignment Sheet #1

1. potato
2. grapes
3. zucchini
4. bananas
5. avocado
6. peach
7. broccoli
8. pineapple
9. okra
10. carrots
11. cantaloupe
12. beets
13. kale
14. apple
15. parsnips
16. onion
17. rhubarb
18. beans
19. spinach
20. turnip
21. apricot
22. grapefruit
23. nectarine
24. corn
25. peppers
26. collards
24. eggplant
28. cucumber
29. asparagus
30. brussels sprouts

Assignment Sheet #2 key

The teacher may prefer to give bonus credit for this assignment since it is introductory or use for discussion only. Answers may vary from the list on the following page. For example, strawberries might be listed under B for berries or S for strawberries, citrus fruit could be under C, or orange under O, lemon under L, etc.

A
artichoke V
asparagus V
apple F
apricot F
avocado F

B
beans V
beets V
blackberries F
blueberries F
broccoli V
brussels sprouts V

C
cabbage V
cantaloupe F
carrots V
cauliflower V
celery V
cherries F
corn V
cranberries F
cucumber V

D
dates F

E
eggplant V
endive V

F
fig F

G
grapes F
greens V
grapefruit F

H
hubbard squash V

I
iceberg lettuce V

J
Jerusalem artichoke V
Juneberries F

K
Kale V
Kiwi F
Kohlrabi V
Kumquat F

L
lemons F
leeks V
lettuce V
limes F
limabeans V

M
mushroom V
melons F

N
Nectarine F

O
okra V
olives F
onions V
oranges F

P
Parsnips V
Peach F
Pears F
Peas V
peppers V
pineapple F
plums F
potatoes V
pumpkin V

Q
quince F

R
radish V
rhubarb V
rutabaga V

S
salsify V
spinach V
squash V
sweet potato V

T
tangarine F
tomatoes V
tangelo F
turnip V

U

V

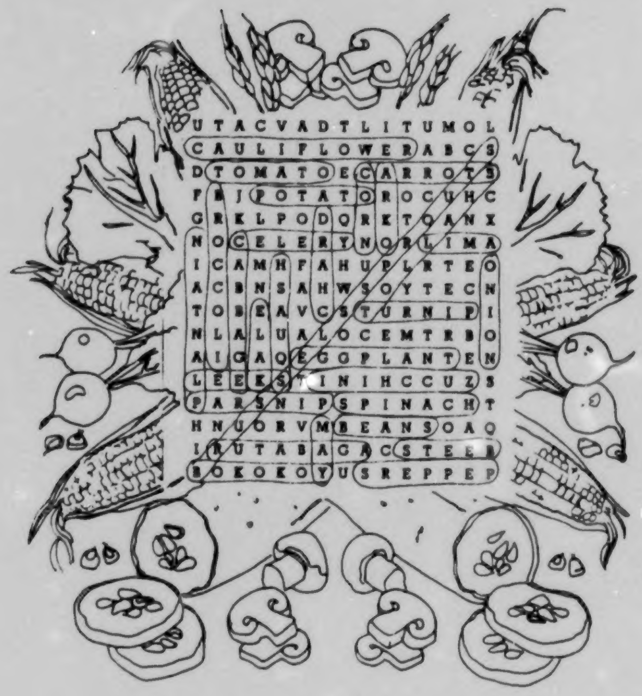
W
watermelon F
waxbeans V
winter squash V

X

Y
yams V

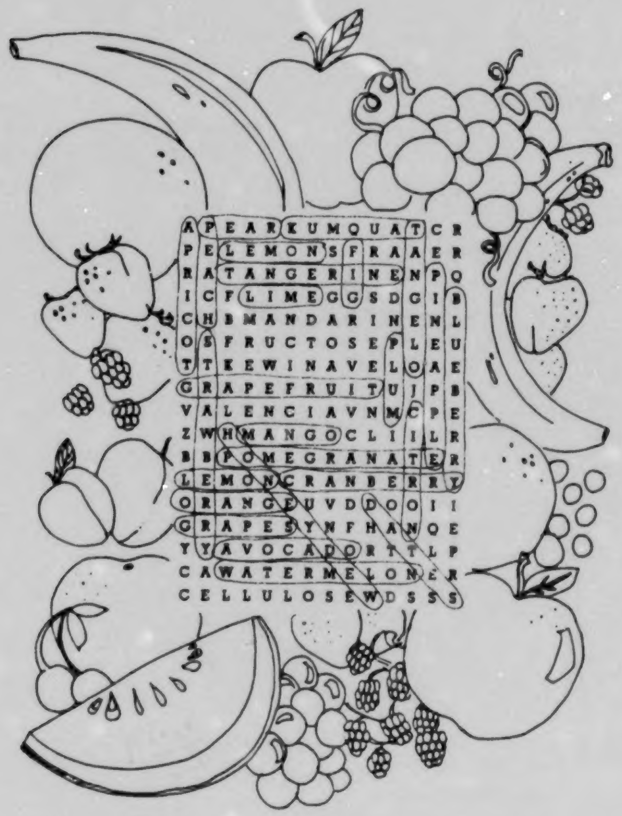
Z
zucchini V

Assignment Sheet #3



U T A C V A D T L I T U M O L
C A U L I F L O W E R A B C S
D T O M A T O E C A R R O T S
F R J P O T A T O R O C U H C
G R K L P O D O R K T O A N X
N O C E L E R Y N O R L I M A
I C A M H F A H U P L R T E O
A C B N S A H W S O Y T E C N
T O B E A V C S T U R N I P I
N L A L U A L O C E M T R B O
A I G A O E G G P L A N T E N
L E E K S T I N I H C C U Z S
P A R S N I P S P I N A C H T
H N U O R V M B E A N S O A O
I R U T A B A G A C S T E E R
B O K O K O Y U S R E P P E P

Assignment Sheet #4



A P E A R K U M Q U A T C R
P E L E M O N S F R A A E R
R A T A N G E R I N E N P Q
I C F L I M E G G S D G I B
C H B M A N D A R I N E N L
O S F R U C T O S E P L E U
T T E E W I N A V E L O A E
G R A P E F R U I T U J P B
V A L E N C I A V N M C P E
Z W H M A N G O C L I I L R
B B P O M E G R A N A T E R
L E M O N C R A N B E R R Y
O R A N G E U V D D O O I I
G R A P E S Y N F H A N O E
Y Y A V O C A D O R T T L P
C A W A T E R M E L O N E R
C E L L U L O S E W D S S S

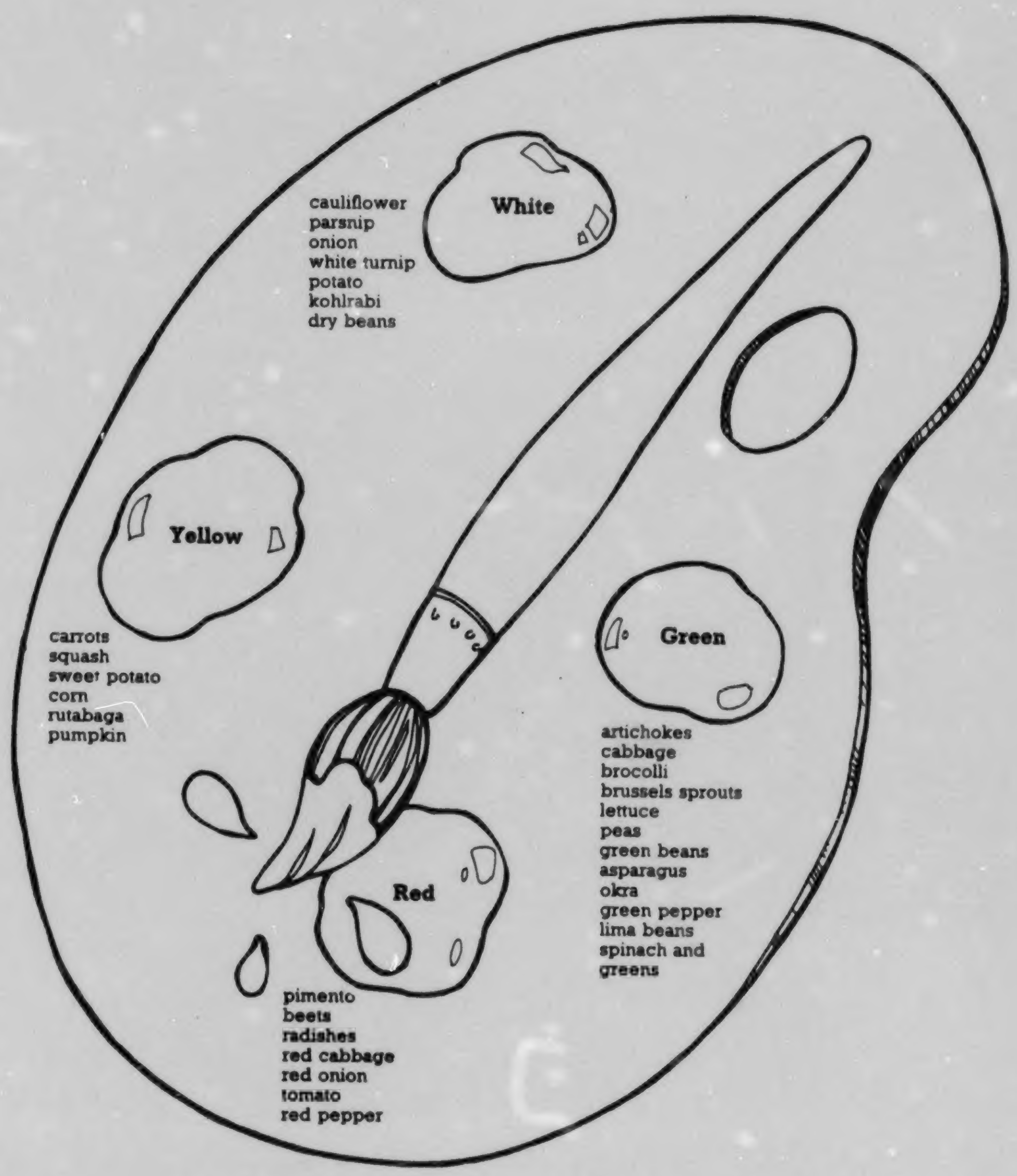
Assignment Sheet #5:

Chart should be appropriately completed to the satisfaction of the instructor.

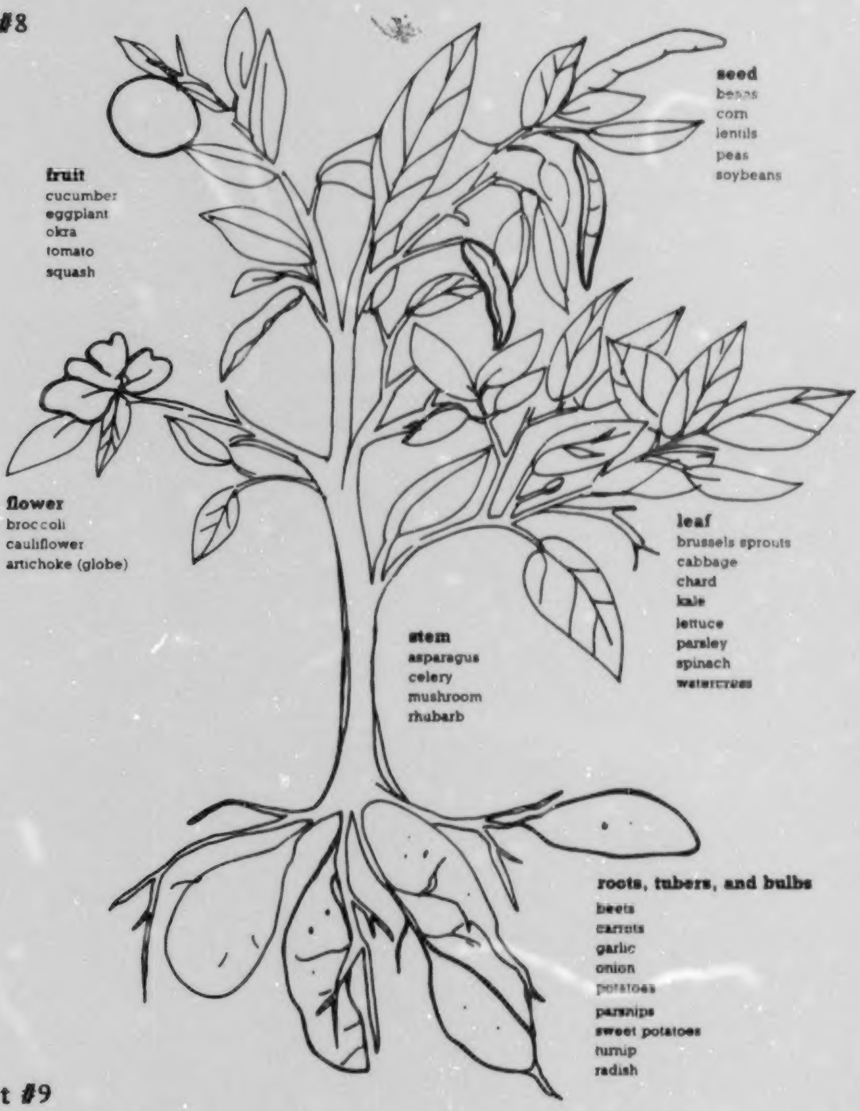
Assignment Sheet #6:

	Points Possible
Used a variety of vegetables and fruits (Don't repeat during day or too often during week)	5
Serve in a variety of ways (Vary cooking method) Use at least 5 different ones	5
At least 1 fruit or vegetable served per meal (4 per day)	15
At least 1 fruit or vegetable high in vitamin C served each day	5
At least 1 fruit or vegetable high in vitamin A served each day	5
Harmonious color giving variety	5
Harmonious flavors (not too bland or too strong)	5
Good texture and shape contrast (Vegetables in one meal are not from same part of plant)	5
Total	**40 point possible**

Assignment Sheet #7


White
cauliflower
parsnip
onion
white turnip
potato
kohlrabi
dry beans
Yellow
carrots
squash
sweet potato
corn
rutabaga
pumpkin
Green
artichokes
cabbage
brocolli
brussels sprouts
lettuce
peas
green beans
asparagus
okra
green pepper
lima beans
spinach and
greens
Red
pimento
beets
radishes
red cabbage
red onion
tomato
red pepper

Assignment Sheet #8


fruit
cucumber
eggplant
okra
tomato
squash
seed
beans
corn
lentils
peas
soybeans
flower
broccoli
cauliflower
artichoke (globe)
leaf
brussels sprouts
cabbage
chard
kale
lettuce
parsley
spinach
watercress
stem
asparagus
celery
mushroom
rhubarb
roots, tubers, and bulbs
beets
carrots
garlic
onion
potatoes
parsnips
sweet potatoes
turnip
radish

Assignment Sheet #9

1. greens
2. mayonnaise
3. aspic
4. molded
5. chicory
6. enzymatic browning
7. emulsion
8. garnish
9. lettuce
10. fruit
11. bromelin
12. gelatin
13. dressing

Assignment Sheet #10

1. apples; all others are vegetables
2. oranges; all other are pomes
3. spinach; all others are fruits
4. pears; all others are drupes
5. tomato; all others are white
6. broccoli; all others are yellow
7. peach; all others are berries
8. lettuce; all others are seeds
9. pineapple; all others are citrus
10. asparagus; all other are flowers
11. pumpkin; all others are melons
12. garlic; all others are leaves
13. tomatoes; all others are tropical
14. beets; all others are green
15. potatoes; all others are strong flavored
16. lentils; all others are fruit parts of vegetable plant
17. artichoke; all other are stems
18. celery; all others are roots
19. potatoes; all others are very high in vitamin A
20. mushrooms; all others are leaves

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 4: Fruits and Vegetables

JOB SHEET #1: TAKE ACTION!

Directions: To test the guidelines of fruit and vegetables preparation and storage, complete the following experiments. You may wish to complete these as a class or divided into groups with each group completing one (or all) and sharing results with the class.

Experiment A: Storage of Vegetables

Objective: To determine how storage methods affect the keeping quality of foods.

Equipment and supplies

head of lettuce
paper towels
aluminum wrap
covered plastic container or plastic bag
bread and butter plates

Procedure

Wash lettuce, allow to drain.
Remove leaves, and dry carefully between paper towels.
Each leaf will be stored under different conditions as follows:

1. uncovered, at room temperature
2. uncovered, in the refrigerator
3. wrapped in aluminum wrap, in the refrigerator
4. sealed in a plastic bag or covered plastic container, in the refrigerator

Observations

Examine the lettuce leaves after 24 hours.
Record your observations on the chart below.

	After 24 hours	
Storage Method	**Texture**	**Color**
Uncovered (Room Temperature)		
Uncovered (Refrigerator)		
Aluminum Wrap (Refrigerator)		
Plastic Bag or Container (Refrigerator)		

Conclusions

1. Which storage method would you recommend for storing lettuce in the home?
2. What other vegetables should be cared for the same way as lettuce?

Experiment B: Amount of Water and Cooking Time

Objective: To determine the effects of the amount of water and length of cooking time on vegetables.

Equipment and supplies

Fresh green beans
4 small saucepans
with lids
knife

Baking soda
4 small serving dishes
4 spoons

Procedure

Stem and wash beans.
Divide into 4 equal amounts.
Place each amount into each of 4 small saucepans.

1. In small amount of water, with pan covered for short time (just until fork tender)
2. In small amount of water, with pan uncovered for a short time (until fork tender)
3. In large amount of water, with pan covered for a long time (10-15 min. longer than 1 and 2)
4. In a small amount of water, with 1/4 - 1/2 tsp. baking soda added, with pan covered, for a short time.

Observations

Method	Texture	Color	Flavor
1			
2			
3			
4			

Conclusions

1. Which cooking method would you recommend for green beans?
2. What other vegetables should be cooked the same way?

Experiment C: Alkali, Acid and Color

Objective: To determine the effects of alkali and acid on color of vegetables

Equipment and supplies

1 head red cabbage
3 small saucepans
with lids

Baking Soda
vinegar
knife
3 spoons
3 small serving dishes

Procedure

Wash cabbage.
Divide into three parts.
Place each part into each of 3 small saucepans.
Cook each as follows:

1. With lid on, in small amount of water made alkaline with approximately 1/2 tsp baking soda added.
2. With lid on, in small amount of water made acid with approximately 1/2 tsp. vinegar added.
3. With lid on, in small amount of plain water.

Observations

Method	Color	Flavor
1		
2		
3		

Conclusions

1. Which type of water would you recommend for cooking red vegetables?
2. What other vegetables should be cooked the same way?

Experiment D: Cooking Time, Water and Flavor

Objective: To determine the effect of cooking time and amount of water on strong flavored vegetables

Equipment and supplies

1 onion	2 small serving dishes
2 small saucepans with lids	2 spoons
	knife

Procedure

Wash and peel onion
Divide into two parts.
Place each part into one of the 2 small saucepans.
Cook each as follows:

1. In small amount of water in a covered pan, cook just until tender.
2. In large amount of water in an uncovered pan, cook just until tender.

Observations

Method	Flavor
[illegible]	
2	

Conclusions

1. Which type of cooking method would you recommend for strong flavored vegetables?
2. What other vegetables should be cooked the same way?

Experiment E: Cooking Fruit

Objective: To determine the effects of sugar in cooking fruits.

Equipment and supplies

1 large apple
2 small saucepans
with lids
2 T sugar (approximate)
2 small serving dishes
knife
2 spoons

Procedure

Peel and slice apple into rings.
Divide rings into 2 portions.
Cook as follows:

1. Dissolve sugar in small amount (1/4 cup) of water in one saucepan.
   Heat to boiling.
   Add one portion of apple rings to the pan.
   Reduce heat.
   Cook until tender.

2. Heat 1/4 cup (approx.) water to boiling.
   Add 1 portion of apple rings.
   Reduce heat.
   Cook same length of time as number 1.

Observations

Method	Texture	Color
1		
2		

Conclusions

1. When would you recommend method number 1 for cooking fruits?

2. When would you recommend method number 2 for fruits?

Experiment F: Enzymatic Browning

Objective: To determine the effect of lemon juice on enzymatic browning.

Equipment and supplies

2 bananas	1 teaspoon lemon juice
1 knife	4 small plates
aluminum foil	

Procedure

Peel bananas and slice lengthwise.
Place one piece on each of 4 plates.
Store, using each method below.

1. Mix lemon juice thoroughly with 1 tablespoon water; sprinkle lemon juice mixture on 1 banana slice. Let set out at room temperature for 30 min.
2. Leave 1 banana slice plain. Let set out at room temperatures at least 30 min.
3. Cover plain banana with aluminum foil and place in refrigerator for at least 30 min.
4. Place plain banana in refrigerator, uncovered, for at least 30 min.

Observations

Method	**Color** *(after 30 min.)*	**Color** *(after 60 min., if time allows)*
1		
2		
3		
4		

Conclusions

1. Which method would you recommend for keeping bananas after peeling?
2. What other fruits should be handled the same way?

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 4: Fruits and Vegetables

JOB SHEET #2: FRUIT BUFFET

Directions: Divide the class into groups. The instructor will assign each group one of the 6 methods for cooking fruits. Using standardized cookbooks (Betty Crocker, Better Homes, Pillsbury, etc.) each group is to find an appropriate recipe for the method assigned. The kind of fruit used is chosen by the group. Each group should try to choose a recipe new to the group, one appropriate to the time schedule and budget, and one serving an appropriate amount. Following correct procedures for preparing and serving fruits, follow the steps below. When completed, all fruit dishes will be displayed to the class and sampled by each student.

I. Method of Fruit Cookery: ____

II. Recipe (write in full here):

III. List of grocery supplies needed:

		(check one)	
Exact amount	Item Name	To Be Purchased	In department

IV. List equipment needed:

V. Work and Time Schedule:

Time	Job	Person Assigned

VI. Serve to the class and sample

VII. Record and discuss with class the things learned, preferences, new tastes, etc.

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 4: Fruits and Vegetables

TEACHER EVALUATION

JOB SHEET #2: FRUIT BUFFET

(Circle Rating)

	NOT DONE	POOR	SATISFACTORY	AVERAGE	GOOD	EXCELLENT
Appropriate recipe selection: (Correct method as assigned, shows variety, appropriate amount served, etc.)	0	2	4	6	8	10
Well prepared according to fruit preparation guidelines and recipe	0	2	4	6	8	10
General lab procedure was efficient	0	2	4	6	8	10
Attractively served	0	2	4	6	8	10
Total Received						

Total Possible 40

Members of Group:

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 4: Fruits and Vegetables

JOB SHEET #3: VEGETABLE BUFFET

Directions: Divide the class into groups. The instructor will assign each group one of the 10 methods of vegetable cookery. Using standarized cookbooks (Betty Crocker, Better Homes, Pillsbury, etc.) each group is to select an appropriate recipe for the method assigned. The vegetable used is chosen by the group. Each group should try to choose a recipe new to the group, appropriate for the time schedule and budget, and one serving an appropriate amount. Following correct procedures for preparation and serving of vegetables, following the steps below. When completed, all vegetable dishes will be displayed to the class and sampled by each student.

I. Method of Vegetable Cookery:______________________________________
II. Recipe (write in full here):

240

III. List of grocery supplies needed:

Exact Amount	Item name	(check one) To Be Purchased	In department

IV. List equipment needed:

V. Work and Time Schedule:

Time	Job	Person Assigned

VI. Serve to class and sample

VII. Record and discuss with class the things learned, preferences, new tastes, etc.

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 4: Fruits and Vegetables

TEACHER EVALUATION

JOB SHEET #3: VEGETABLE BUFFET

(Circle Rating)

	NOT DONE	POOR	SATISFACTORY	AVERAGE	GOOD	EXCELLENT
Appropriate recipe selection: (Correct method as assigned, shows variety, appropriate amount served, etc.)	0	2	4	6	8	10
Well prepared according to vegetable preparation guidelines and recipe	0	2	4	6	8	10
General lab procedure was efficient	0	2	4	6	8	10
Attractively served	0	2	4	6	8	10
Total Received						

Total Possible 40

Members of Group:

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UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 4: Fruits and Vegetables

JOB SHEET #4: SALAD BUFFET

Directions: Divide the class into groups. The instructor will assign one of the seven types of salad (gelatin, frozen, green, hot, fruit, vegetable, or meat) to each group. Using standardized cookbooks (Betty Crocker, Better Homes, Pillsbury, etc.) each group is to select a salad recipe for the type salad they have been assigned and follow the procedure below. Be sure recipe is appropriate for your time schedule and budget. Salads will be displayed and sampled by each student.

(NOTE: Gelatin and frozen salads may require a 2 day-lab)

I. Type of Salad:

II. Recipe (write in full here):

III. Describe how garnished and served:

IV. List of grocery supplies needed:

		(check one)	
Exact Amount	Item Name	To Be Purchased	In Department

V. List equipment needed:

VI. Work and Time Schedule:

Time	Job	Person Assigned

VII. Garnish and serve salad to the class and sample

VIII. Record and discuss with the class opinions and preferences and things learned concerning salads served.

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 4: Fruits and Vegetables

TEACHER EVALUATION

JOB SHEET #4: SALAD BUFFET

(Circle Rating)

	NOT DONE	POOR	SATISFACTORY	AVERAGE	GOOD	EXCELLENT
Colorful and attractively served (heaped in center, garnished, etc.)	0	2	4	6	8	10
Well prepared according to salad preparation guidelines (properly torn or cut; good flavor; crisp, dressing made correctly	0	2	4	6	8	10
General lab procedure was efficient	0	2	4	6	8	10
Appropriate recipe selection (correct type; reasonable expense; variety; correct amount)	0	2	4	6	8	10
Total Received						

Total Possible 40

Members of Group:

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 4: Fruits and Vegetables

ANSWERS TO JOB SHEETS

Job Sheet 1:

Answers on charts should meet the satisfaction of the instructor. Answers to conclusions might include:

Ex. A a. Method #4
 2. All leafy green, most vegetables that grow on top of the ground

Ex. B 1. Method #1
 2. Most vegetables except beets and strong flavored ones

Ex. C 1. Acidic
 2. All red vegetables such as beets

Ex. D 1. Method #2
 2. Cabbage, turnips, other strong flavored vegetables

Ex. E 1. Method #1 would be used when serving whole pieces of fruit
 2. Method #2 would be used when making sauces and juice

Ex. F 1. Method #1
 2. Apples

Job Sheets 2-4

Evaluation forms are provided for each buffet.

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 4: Fruits and Vegetables

TEST

1. Match the terms on the left with the correct definition on the right by placing the appropriate number in the blank beside each definition.

1. cellulose
2. pectin
3. dehydrated
4. legumes
5. chlorophyll
6. carotene
7. flavones
8. enzymatic browning
9. aspic
10. emulsion
11. bromelin
12. stabilizer

____a. pigments in white vegetables

____b. source of vitamin A found in deep yellow and orange fruits and vegetables

____c. a jellied mold of meat, fish, or vegetables

____d. with water removed

____e. green pigment in plants

____f. a carbohydrate that constitutes the chief part of the cell walls of plants, not completely digestible

____g. darkening of fruits and vegetables when exposed to the air

____h. edible seeds that grow in a pod

____i. enzymes in fresh and frozen pineapple

2. Briefly describe the contribution of fruits and vegetables to the diet (give at least 4 contributions).

3. Place a (+) in front of each statement below which is a guideline to follow in selecting and buying fruits and vegetables.

_____a. Citrus fruits should be lightweight for their size.

_____b. The larger fresh berries usually have the best flavor.

_____c. Heads of cabbage which are compact are usually the best buys.

_____d. Fruits and vegetables do not have to be graded.

_____e. Frozen food packages with slight staining but no other damage might be sold at lower prices and be a good buy.

_____f. Cans with slight dents and no other damage might be sold at lower prices and be a good buy.

_____g. Canned foods are generally most economical of all forms of fruit and vegetables in saving time, money and energy.

_____h. All grades of fruits and vegetables are equally nutritious.

_____i. Choose the highest quality at the lowest price.

4. Place a (+) in front of each statement below which is an appropriate guideline to follow in planning, preparing, and serving fruits and vegetables.

_____a. Broccoli and potatoes would be a better combination of vegetables to serve at a meal than cauliflower and potatoes.

_____b. Lettuce and corn would be a better combination of vegetables to serve at a meal than peas and corn.

_____c. Most fruits and vegetables should be cooked in a covered pan.

_____d. Water should just barely cover the vegetables in the saucepan when cooking.

_____e. Lemon juice will prevent fruits from turning dark.

_____f. Soaking vegetables before cooking will make them more tender.

_____g. Fruits cooked in sugar hold their shape better than those cooked in water only.

_____h. It is best to cut pieces as small as possible when cooking fruits and vegetables.

_____i. Most nutrients are located near the skin of fruits and vegetables.

_____j. Always cook canned vegetables in the liquid in which they were canned.

_____k. Cabbage should be cooked in an open pan.

_____l. Baking soda added to the cooking water of vegetables will help preserve nutrients.

5.

a. List 5 methods of serving or preparing fruits.

1.

2.

3.

4.

5.

b. List 5 methods of serving or preparing vegetables.

1.

2.

3.

4.

5.

6. List 5 ways to make use of leftover fruits and vegetables.

1.

2.

3.

4.

5.

7. Match the salads listed on the right to the correct definition on the left by placing the number in the correct blank.

_____ a. one fruit or a combination, with or without dressing

_____ b. combination of raw or cooked vegetables with dressing

_____ c. escarole, romaine, spinach with dressing

_____ d. molded with fruits or vegetables

_____ e. whipped cream or mayonnaise with fruits or vegetables

_____ f. hot dressing over vegetables

1. green
2. fruit
3. vegetable
4. meat, fish, poultry, and egg
5. gelatin
6. frozen
7. hot

8. List the 3 major types of salad dressing and describe each briefly.

a.

b.

c.

9. List 5 ways to serve salads.

a.

b.

c.

d.

e.

10. Place a (+) beside each statement below which is a proper guideline to follow in planning, preparing and serving salads.

_____a. Cut salad ingredients all about the same size.

_____b. Cut salad greens so edges will not be so ragged.

_____c. Wait until the last minute before removing frozen salads from the freezer.

_____d. Use generous amounts of dressing.

_____e. Wait until the last minute to add dressings.

_____f. Add fruits and vegetables to a gelatin salad immediately after gelatin is dissolved.

_____g. Do not use fresh pineapple in a gelatin salad.

11. Place a (+) beside each statement below which is a guideline to follow in proper care and storage of fruits and vegetables.

_____a. Be sure to wash and drain all berries and cherries well before storing.

_____b. Do not refrigerate bananas.

_____c. Unripe fruits usually ripen well in the refrigerator.

_____d. Frozen fruits can usually be kept frozen up to 12 months.

_____e. Unopened canned vegetables will keep well in a cool, dry place.

_____f. Dried fruit must be refrigerated.

_____g. Most root vegetables don't require refrigeration.

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 4: Fruits and Vegetables

ANSWERS TO TEST

1. a. 7
   b. 6
   c. 9
   d. 3
   e. 5
   f. 1
   g. 8
   h. 4
   i. 11

2. Answers should include any four:

   a. high in vitamins, especially A and C
   b. Contain minerals in various amounts
   c. Very little protein in most fruits and vegetables
   d. Very little fat in most fruits and vegetables
   e. Fruits and vegetables contain varying amounts of carbohydrates (sugar and starch) but are generally high

3. a.
   b.
   c. +
   d. +
   e.
   f. +
   g. +
   h. +
   i. +

4. a. +
   b. +
   c. +
   d.
   e. +
   f.
   g. +
   h.
   i. +
   j. +
   k. +
   l.

5. a. any five

   1. raw
   2. cooked in water
   3. baked
   4. fried
   5. broiled
   6. in baked foods

   b. any five

   1. raw
   2. cooked in water
   3. steamed
   4. pressure cooked
   5. baked
   6. broiled
   7. fried
   8. creamed
   9. scalloped
   10. glazed
   11. braised (panned)

6. Any five:

   a. Marinate cooked vegetables and serve over lettuce
   b. Add leftover fruit to gelatin
   c. Make into fritters
   d. Add cream sauce and bake as casserole
   e. Add to soup or stew
   f. Use in quiche or omelet
   g. Make leftover fruit into a sauce for other desserts

7. a. 2
   b. 3
   c. 1
   d. 5
   e. 6
   f. 7

8. a. Mayonnaise - vinegar, oil and eggs, and seasoning in a permanent emulsion
   b. French - vinegar, oil, and seasoning in a temporary emulsion
   c. Cooked base - vinegar or fruit juice and seasoning cooked with a thickener

9. Any five

   a. appetizer
   b. accompaniment
   c. separate course
   d. main course
   e. garnish
   f. dessert

10. a. +
   b.
   c.
   d.
   e. +
   f.
   g. +

11. a.
   b. +
   c.
   d. +
   e. +
   f.
   g. +

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 5: Eggs, Meats*, and Legumes

LESSON OBJECTIVE

After completion of this lesson, the student should be able to select, care for, prepare and properly store eggs, meats, and legumes. This knowledge will be evidenced through completion of assignment and job sheets and by scoring 85 percent on the lesson test.

SPECIFIC OBJECTIVES

Eggs

Match terms associated with eggs to the correct definitions.**

Select from a list main nutrients contained in eggs.**

Label the parts of an egg.**

Describe egg cookery principles.**

Name uses of eggs in recipes.**

Discuss factors to consider when purchasing eggs.**

Match grades of eggs to their descriptions/diagrams.**

Describe the proper storage of eggs.**

Demonstrate the ability to:**

a. Separate eggs for cookery.

b. Prepare cheese omelet.

c. Prepare hard-cooked eggs.

d. Prepare basic vanilla pudding.

e. Prepare Forgotten Cookies.

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* In this lesson "Meats" includes red meats, poultry, and fish.

**These objectives are covered in Home Economics II - Basic Core, Unit IX, p. 251-275.

Red Meats

1. Match terms associated with red meats to the correct definitions.
2. List common types of meats.
3. List the forms of meat.
4. Match the four components of meat to the correct descriptions.
5. Select the main nutrients contained in meats from a list.
6. List factors to consider in the purchase of meats.
7. Recognize meat inspection stamp and its purpose.
8. Match grades of meats to the correct descriptions.
9. Identify the eight basic wholesale and retail cuts of beef, pork, and lamb.
10. Match common cooking methods to the correct descriptions.
11. List rules to remember in cooking meats.
12. Complete a chart on cooking methods of red meat cuts.
13. List uses of meats in recipes.
14. Select dietary meat substitutes from a list.
15. List factors to consider when storing meats.
16. Compare costs of available meat forms.
17. Cook a cut of red meat properly.
18. Prepare a recipe containing red meat.
19. Demonstrate the ability to:
    a. Compare grades of red meat.
    b. Compare cooking methods for red meat.
    c. Compare cooking temperatures for red meat.

Poultry

20. Match terms associated with poultry to correct definitions.
21. Describe the contribution of poultry to the diet.
22. List the forms of poultry to buy.

23. Describe and briefly explain the USDA grade stamp and inspection stamp on poultry.
24. Match classes of poultry to descriptions.
25. State the general rule for determining how much poultry to buy.
26. List ways to serve poultry.
27. List ways to use poultry leftovers.
28. Identify guidelines for preparation of poultry.
29. Identify techniques of proper care and storage of poultry.
30. Demonstrate the ability to prepare poultry properly.

Fish

31. Match terms associated with fish to correct definitions.
32. Describe the contribution of fish to the diet.
33. List and describe the two main classes of fish.
34. List the four forms in which to buy fish.
35. Identify techniques in buying fish.
36. Identify guidelines for how much fish to buy.
37. List ways to serve fish.
38. List ways to use leftover fish.
39. Identify general techniques to follow to prepare fish.
40. Describe methods of fish cookery.
41. Identify care and storage techniques for fish.
42. Demonstrate the ability to prepare fish properly.

Legumes

43. Match terms associated with legumes to correct definitions.
44. Describe the contribution of legumes to the diet.
45. Identify general guidelines for buying legumes.
46. Match types of legumes to correct description.
47. List ways to serve legumes.
48. Identify preparation guidelines and steps for legumes.

49. Identify care and storage guidelines for legumes.

50. Identify and analyze recipes using legumes.

51 Compare various cookery methods for legumes.

52. Demonstrate the ability to prepare legumes.

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 5: Eggs, Meats*, and Legumes

SUGGESTED ACTIVITIES

I. Suggested activities for instructor:

   A. Provide student with objective sheet.

   B. Provide student with information, assignment, and job sheets.

   C. Make transparencies.

   D. Discuss lesson and specific objectives.

   E. Discuss information and assignment sheets.

   F. Adapt materials for special needs student.

   G. Give test

   H. Reteach if necessary.

INSTRUCTIONAL MATERIALS

I. Included in this lesson

   A. Objective sheet

   B. Information sheet

   C. Handouts

      1. HO 1: Meat Cooking Methods
      2. HO 2: Kinds of Poultry
      3. HO 3: Timetable for Cooking Fish
      4. HO 4: Cooking Guide For Dry Beans, Peas, and Lentils

   D. Transparency masters:

      1. TM 1: Tender and Less Tender Cuts of Meat
      2. TM 2: Wholesale and Common Retail Cuts of Beef
      3. TM 3: Wholesale and Common Retail Cuts of Pork
      4. TM 4: Wholesale and Common Retail Cuts of Lamb
      5. TM 5: Meat Inspection Stamps
      6. TM 6: Methods of Tenderizing Meats
      7. TM 7: Basic Methods of Meat Cookery
      8. TM 8: Fish Cookery

E. Assignment sheets

1. AS 1: Compare Costs of Available Meat Forms
2. AS 2: Expensive and Less Expensive Cuts of Meat
3. AS 3: Label Cuts of Red Meat by Grade
4. AS 4: Wholesale and Common Retail Cuts of Beef
5. AS 5: Wholesale and Common Retail Cuts of Pork
6. AS 6: Wholesale and Common Retail Cuts of Lamb
7. AS 7: Red Meats Identification Review: Sources of Common Commercial Cuts
8. AS 8: Review of Bone Shapes of Red Meat
9. AS 9: Red Meat Cookery Methods
10. AS10: Red Meat Preparation Problems - Review
11. AS11: Identification of Beef Cuts and Cookery Methods Review
12. AS12: Identification of Pork Cuts and Cookery Methods Review
13. AS13: Crossword Puzzle - General Review
14. AS14: Meat Word Search - General Review
15. AS15: Poultry Puzzle
16. AS16: Introductory Fish Survey
17. AS17: Fish Cipher
18. AS18: Wheel of Legumes
19. AS19: Legumes Recipes

F. Answers to assignment sheets

G. Job sheets

1. JS 1: Cook a Cut of Meat
2. JS 2: Prepare a Recipe Containing Red Meat
3. JS 3: Compare Quality/Price of Red Meat
4. JS 4: Compare Methods of Cooking Red Meat
5. JS 5: Compare Effects of Cooking Temperatures on Red Meats
6. JS 6: Cooking Poultry
7. JS 7: Fish Cookery
8. JS 8: Legume Cookery Methods

H. Test

I. Answers to Test

II. References:

A. Benson, A. Home Economics II: Basic Core. Stillwater: Oklahoma State Department of Vocational and Technical Education, 1973.

B. Bloch, B. The Meat Board Meat Book. New York: McGraw-Hill Book Co., 1977.

C. Largen, V. Guide to Good Food. South Holland, IL: Goodheart-Willcox, 1981.

D. Meat Evaluation Handbook. Chicago: National Livestock and Meat Board, 1973.

E. Medved, E. The World of Food. Lexington, MA: Ginn and Co., 1981.

F. Methven, B. and Thoms, S. Microwaving Fruits and Vegetables. Publication Arts, Inc. Minnetonka, Minnesota: 1981.

G. Newberry, L. and Fisher, M. F. The Food Book. South Holland, IL: Goodheart-Willcox Co., Inc., 1981.

H. Ohl, S., et al. Guide to Modern Meals. St. Louis: McGraw-Hill, 1981.

III. Visuals and Aids

NOTE: Visuals are extremely important to this lesson. Those listed here are very good. The instructor should make every effort to obtain them and use them.

A. Slides and Photos - "Meat Identification." Available for purchase from the National Live Stock and Meat Board; 444 North Michigan Avenue; Chicago, IL 60611.

B. Filmstrip - "Basic Beef Cookery." Available for purchase from the Beef Industry Council; National Livestock and Meat Board; 444 North Michigan Avenue; Chicago, IL 60611.

C. Filmstrip - "Beef, Your Stake in Basic Nutrition." Available for purchase from the Beef Industry Council; National Livestock and Meat Board; 444 North Michigan Avenue; Chicago, IL 60611.

D. "Beef Buying Basics." Available for purchase from the Beef Industry Council; National Livestock and Meat Board; 444 North Michigan Avenue; Chicago, IL 60611.

E. Kit including masters, charts, and posters - "Teaching About Today's Pork." Director of Consumer Relations; National Pork Producers Council; 4715 Grand Avenue; Des Moines, IA 50312.

F. Kit including filmstrip - "The Art of Selecting Cuts of Pork." Available from the National Livestock and Meat Board; 444 North Michigan Avenue; Chicago, IL 60611.

G. Filmstrip and cassette for purchase (possibly free); "Let's Talk Turkey"; National Turkey Federation; 110 Social Hall Arena; Salt Lake City, Utah 84111.

H. Filmstrip and cassette for purchase; "How to Buy Poultry"; Distributed by Photo Lab Inc.; 3825 Georgia Ave. N.W.; Washington, D.C. 20011.

I. Filmstrip - "Protein Substitutes." Available from Miles Laboratories, Inc.; 7123 West 65th Street; Chicago, IL 60638.

J. Filmstrip - "Facts and Fallacies About Food." Available from Consumer Service Department; Swift and Company; 1919 Swift Drive; Oak Brook, IL 60521.

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 5: Eggs, Meats*, and Legumes

NOTES TO THE INSTRUCTOR

1. Plan this lesson to fit specific time and budget needs; decide which assignment and job sheets might be completed by students at home and which use activities in this section.

2. Plan to demonstrate methods of meat preparation and have students complete a chart on meat cookery methods during the discussion of meat cookery prior to the students completing job sheets.

3. In addition to the above demonstration, or instead of it, (if time and budget are limited) show the filmstrip "Basic Beef Cookery."

4. Obtain ad sheets from a local grocery store; make up questions pertaining to the sheet and have students answer (e.g., How much to buy of a certain special; which special would be best to roast, barbecue, or to cook quickly; best cuts of beef on sale, and of pork; how much it would cost to feed a family of 6).

5. Using these same ad sheets, have students make up menus for a week featuring meats on special.

6. Write names of tender and less tender cuts of meat on 3 x 5 cards; write tender or less tender on the back side of the card depending on the cut of meat; have student sort cuts of meats into tender or less tender stacks and check his/her work.

7. Arrange for a study tour of a meat processing plant to allow students to observe the processing of an animal into the wholesale and retail cuts.

8. Have students begin a recipe file on meat recipes.

9. Arrange for students to observe packaging, marketing, and display procedures as well as participate in identifying retail cuts of meat at the meat section of a grocery store.

10. Demonstrate methods used in cutting up a chicken; encourage students to cut up a chicken and prepare a recipe using chicken as part of a foods lab or home experience.

11. Have students do special reports on procedures for inspecting and grading meats.

12. Encourage students to prepare meat or meat dishes as part of a foods home experience.

13. Purchase a beef blade steak or roast to illustrate the four components of meat.

14. Point out areas of meat that are exercised the most and exercised the least. Emphasize that the less tender meat cuts come from the most exercised portion of the animal while the tender meat cuts come from the least exercised portion of the animal.

15. Display a T-bone, round bone, rib bone, wedge bone, and blade bone. List meat cuts containing each bone.

16. Use National Livestock and Meat Board meat identification slides to assist in teaching objective 19 and to complete a chart on meat cooking methods.

17. Encourage students to remove the charts containing cuts of red meats and their cooking methods and place them in the kitchen for easy referral.

18. Allow students to divide into groups; have each group choose and prepare one variety meat. Discuss preparation methods and nutritive value of each variety meat selected.

19. Have students plan meat portion of menus for one month. Allow for creative use of leftovers and include a variety of meat types in the plan.

20. Emphasize the importance of fish and poultry selection and preparation. These two meat types provide protein at lower cost and are low in cholesterol.

21. Supplement lesson with materials listed under the Visuals and Aids Section.

22. Review by using a game "Pin the Tail on the Beef." Have students study the chart on beef cuts. Then, blindfolded, have them place the tail on one area of the animal and give example of cuts of meat which come from that part (since you do want student to pin the tail on the animal, do not have the student turn around several times after blindfolding; have student start very near the animal and "head" student toward the animal.) This animal diagram could be on your bulletin board.

23. To help students learn to identify the major cuts of meat, it is very important to use charts from the National Livestock and Meat Board (copy and give as handouts) and use meat cut photos from National Livestock and Meat Board as flashcards in addition to showing meat cut slides.

24. At the beginning of the lesson, emphasize the importance of learning about meats. Explain why it is important to identify meat cuts - helps in selecting cookery method, helps in special ordering meat at store or meat processor, helps one know what to expect when ordering in restaurants, etc. and begin lesson with introductory pretest.

25. Instructor should pass out blank diagrams of beef, pork, and lamb for students to fill in as TMs are shown. The instructor should also show meat cut photos or other examples of retail cuts while showing TM. Have students shade in most tender areas of animal. If possible, cover diagram and show one section at a time.

26. For extra credit, have students read and report on articles on canned fish (tuna), poultry, and meats in Consumer Reports magazine.

27. As an introduction use Introductory Survey and discuss Assignment Sheet #1 with the class.

28. Have students brainstorm examples of fish and fish dishes they enjoy (list on chalkboard.).

29. Have students find magazine pictures of a variety of fish dishes and recipes. Use for bulletin board "Extra, Extra! Biggest Fish Story Ever Told."

30. Demonstrate typical methods for preparing fish, such as poaching, baking, and frying.

31. Plan a taste-testing lab (budget permitting) including less common types of fish and seafood (sardines, herring, anchovies, shark, octopus,etc.).

32. Have a variety of dried legumes for class display.

33. For more experience in preparation of legumes, prepare recipes students find in standard cookbooks, slow-cooker cookbooks, or microwave cookbooks.

34. Decide whether timing can be worked out to complete Job Sheet #8 or whether it can be adapted to fit your time schedule. (For example, omit standard method, which takes longest.)

EXTRA! EXTRA!
BIGGEST FISH STORY EVER TOLD

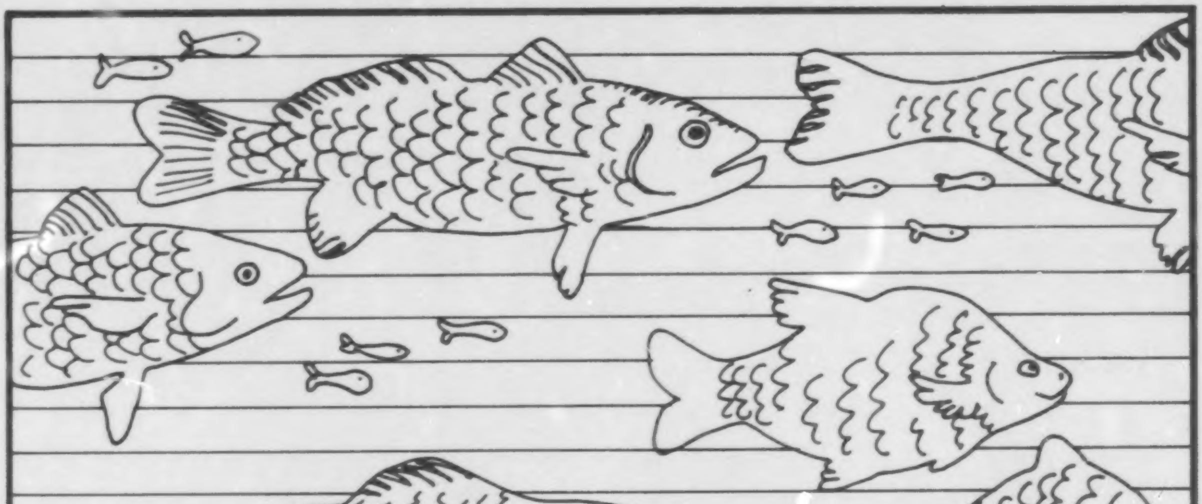
Baked **Poached** **Broiled**

Deep Fat Fried **Pan Fried**

Instructions: Headline could be in large, red letters on newsprint background. Students can find magazine pictures of prepared fish and frame in red construction paper.

Bullletin Board Idea

GET IN THE SWIM


NOTHING'S FINER THAN FISH
IT'S NUTRITIOUS...
HIGH IN PROTEIN...
LOW IN CALORIES...
FULL OF FLAVOR

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 5: Eggs, Meats*, and Legumes

PRETEST

Directions: Put a check in the column which most nearly reflects your idea about each statement. This inventory will not be graded. It is being given to help determine some of the aspects of the red meat story which should be explored in class.

Yes	No	Not Sure		
			1.	One reason meat is especially important in the daily diet is the high quality protein it contributes.
			2.	Protein is much more important in the diets of children than in the diets of adults.
			3.	All members of one family should eat the same size servings of meat.
			4.	Tender cuts of meat are more nutritious than less tender cuts.
			5.	Some cuts of meat cannot be made tender no matter how they are cooked.
			6.	The shape of the bone in a cut of meat can be a clue to the tenderness of the meat.
			7.	The most tender cuts of meat are from the part of the animal which receives the least amount of exercise.
			8.	Grinding meat is a method of tenderizing it.
			9.	All large cuts of meat will be at their best if cooked uncovered in the oven.
			10.	When panfrying meat, it should be browned very quickly at a high temperature in order to seal in the juices.
			11.	Most cuts of meat are best cooked at a low to moderate temperature.
			12.	When cooking a roast, the fat side should be placed down in a roasting pan.
			13.	Braising is a method of cooking meat in a covered container, using a small amount of liquid.
			14.	When buying meat you should always allow a pound per serving.
			15.	An expensive cut of meat will be more nutritious than a less expensive cut.
			16.	Meat is most satisfactorily frozen by putting it into the freezer in its wrapping from the self-service meat counter.

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 5: Eggs, Meats*, and Legumes

INFORMATION SHEETS

Red Meats

I. Terms and definitions

A. **Cut** - specific portion of meat

B. **Beef** - meat of mature cattle, usually six months of age or more (Aged beef refers to beef that has been held during the processing at just above freezing for 2-6 weeks to improve tenderness and flavor.)

C. **Veal** - meat of immature cattle, usually six months of age or less (Veal cuts resemble beef cuts in shape but are only 1/3 to 1/2 the size and are light pink in color.)

D. **Lamb** - meat of sheep less than one year old

E. **Mutton** - meat of sheep over one year old

F. **Pork** - meat of swine

G. **Marbling** - intermingling of fat throughout lean (The more marbling of fat there is in the lean portion, the higher the meat grade will be.)

H. **Tender cut** - least exercised portion of the animal usually located along backbone and upper ribs (A dry heat cooking method can be used to prepare tender cuts for eating.)

I. **Less tender cut** - most exercised portion of the animal, depending upon animal's age and condition (A moist heat cooking method is required to prepare these cuts for eating.)

J. **Nutrient** - substance in food that furnishes body fuel, provides materials for the building and/or maintenance of body tissue, and acts to regulate body processes

K. **Variety meat** - edible part of animal other than skeletal muscles, includes various organs and parts, e.g., tongue, liver, kidney, brain, heart, sweetbread, tripe

L. **Grade of meat** - measure of quality of meat, e.g., prime, choice, good, standard, commercial, utility, cutter, and canner; (the tenderness of the lean and connective tissues and the amount of marbling and juiciness are considered in grading meat. The two meat grades most commonly available for purchase are choice and good.

M. **Tenderize** - to make meat more tender by a mechanical or enzymatic method, e.g., marinate meat in acidic liquids; break and/or soften the muscle and connective tissues by sprinkling with tenderizing powder or pounding with a meat mallet or cleaver

N. **Serving of meat** - 2-1/2 to 3 ounces of cooked, edible lean meat

O. **Red meat** - meat which comes from hogs (pork), cattle (beef), young calves (veal), and sheep (lamb and mutton)

P. **Trichina** - organism which may be found in pork; unless pork is thoroughly cooked, trichina may cause trichinosis, a serious disease affecting muscles, tendons, and intestines.

Q. **Tripe** - the inner lining of the stomach of beef (a variety meat)

R. **Sweetbreads** - thymus glands of lamb, veal, and young beef (a variety meat)

II. Common types of red meats

A. Beef

B. Pork

C. Veal

D. Lamb

E. Mutton

III. Forms of red meat

A. Fresh - sold just as it comes from the animal without any special treatment except aging

B. Cured - treated with preservatives such as sugar, salt, spices, chemicals, or wood smoke; keeps longer than fresh meat, e.g., ham and bacon

C. Canned - fully cooked and sealed in cans or packages; usually may be stored without refrigeration before opening, e.g., corned beef, stews

D. Frozen - may include cooked or uncooked cuts and dishes

IV. Four components of red meat

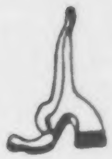
A. Lean - muscle fibers which carry vitamins, minerals, and protein

B. Connective tissue - creamy white, threadlike strands that bind the muscle fibers in little bundles and bind the muscle to the bone

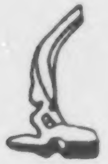
C. Fat - creamy white tissue that surrounds the carcass of the animals just beneath the skin and is found throughout the lean

D. Bone - hard calcium tissue found in vertebrates; used to identify various meat cuts

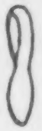
Examples of bones found in red meat cuts:



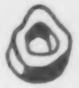
T-Bone



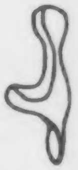
Rib Bone



Wedge Bone



Round Bone



Blade Bone

V. Main nutrients contained in meats - individuals need two 2-3 ounce servings per day.

- A. Protein - major contribution of meat; necessary for growth and repair
- B. Fats
- C. Iron - liver, kidney, and heart are especially high in iron.
- D. Phosphorus
- E. Copper
- F. Thiamine (B_1) - pork is unique among meats for its richness in thiamine.
- G. Riboflavin (B_2) - especially high in liver and kidney
- H. Niacin (B_3) - especially high in liver and kidney
- I. Vitamin A - found in large amounts in liver and kidney
- J. Vitamin B_{12}

VI. Factors to consider in the purchase of meats

Approximately one-third of every consumer dollar is spend on meats or meat products. These factors should be considered when purchasing any type of meat.

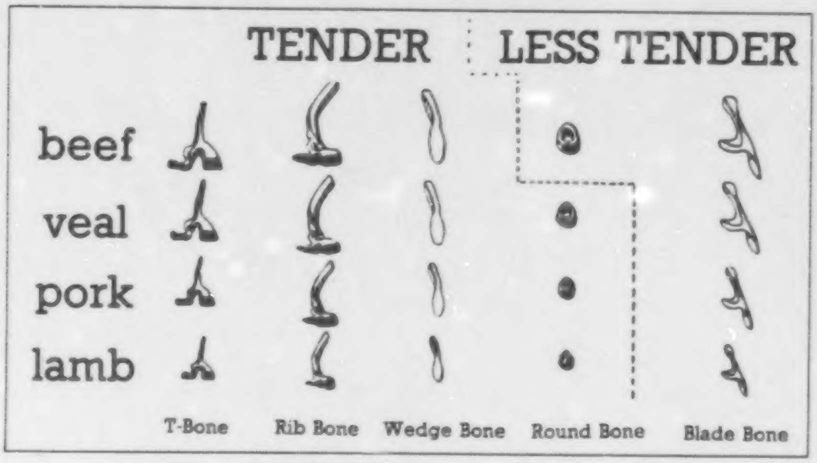
- A. Nutritive value
- B. Type of meat - personal and family preferences influence the type of meat selected.
- C. Tenderness - this will influence cooking method and price.
  - 1. Amount of marbling - generally, the more marbling, the more tender

the meat

2. Grade - top grades are usually more tender than the same cut of low grades, e.g., a lower quality, less expensive, good grade rump roast would normally be cooked by a moist heat method, while a choice grade rump roast could be cooked by a dry heat method.

Meat from more mature animals is usually less tender and can be recognized as such by the marbling and grade.

3. Bone shape - indicates cut of meat (The instructor may wish to use this information with animal diagrams)


TENDER
LESS TENDER
beef
veal
pork
lamb
T-Bone
Rib Bone
Wedge Bone
Round Bone
Blade Bone

  a. Tender cuts: (TM 1, 2, 3, and 4)

    1) Loin and ribs of beef, veal, lamb, and pork

    2) Leg of veal, lamb, and pork

  b. Less tender cuts

    1) Round, rump, flank, and chuck of beef

    2) Shoulder and breast of veal and lamb

    3) Shoulder of pork

D. Wholesomeness

1. Color

2. Odor

3. Inspection stamp

4. Packaging

E. Use of meat-for broiling, choose thick tender steaks; to panfry, choose thin, tender steaks; to braise, less tender cuts may be chosen; to roast, choose a tender roast cut, etc.

F. Number of servings from the cut - purchase 3-4 ounces of boneless meat, 6-8 ounces of meat with medium amounts of bone, 8-16 ounces of heavily boned meat for each serving.

G. Cost per serving - usually tender cuts cost more per serving than less tender cuts; cuts with bone in them may be priced lower but cost per serving may be higher.

H. Total money budgeted for meat or food

I. Proper packaging - damaged packages or cans should not be purchased

J. Storage facilities available

K. Sale items - it is sometimes possible to buy larger amounts than are needed and freeze the surplus. Plan meals in advance to best utilize sale items.

1. Over an hour - on stay-at-home days plan on cuts like roasts, pot roasts, stew meats which require an hour or more (unless a crock pot is used).

2. Under an hour - when time is tight, plan on cuts like chops, steaks, hamburger, or fully cooked meats.

VII. Inspection of meats: (TM 5)

A. Federal law requires all meat sold in the U.S. to pass government inspection.

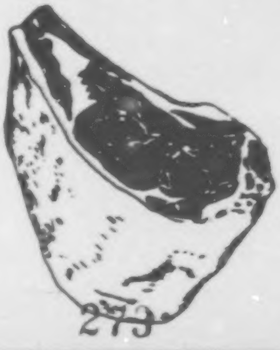
B. This inspection assures consumers a meat supply that is pure, wholesome, and truthfully labeled.

C. This inspection applies to processed meats as well as fresh meats. The labels on all processed meats must carry the name of the product, a list of ingredients, the net weight, and the name and address of the manufacturer, packer, or distributor.

VIII. Grades of meats - the most common grade found at the marketplace is choice grade. The lower grades of commercial, utility, canner, and cutter are not usually seen on meat counters and are used for processed meat products.

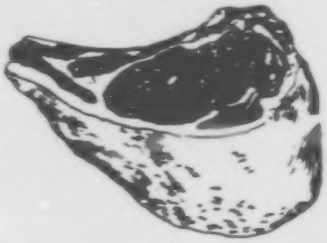
A. Prime - fine-grained, firm lean with white connective tissue; much marbling of fat in lean portion

USDA
PRIME

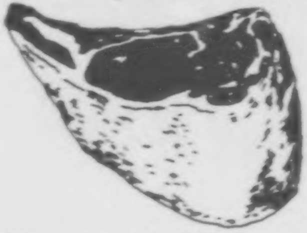


B. Choice - fine-grained, firm lean with white connective tissue; less marbling of fat

USDA
CHOICE



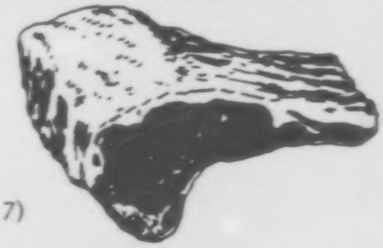
C. Good - coarser-grained lean with creamy white connective tissue; less fat in lean and around it



USDA
GOOD

D. Standard - darker red color; coarser lean with darker connective tissue; less fat in lean and around it

USDA
STNDRD



IX. Common cooking methods for meats (HO 1) (TM 6 and 7)

The method selected to cook meat will be influenced by the tenderness of the meat, its size and thickness, the recipe, the cooking facility available, and who is going to eat the meat.

A. Dry heat methods - these methods are routinely used to cook tender cuts of red meat as well as fish and young poultry.

1. Roasting - cooking food uncovered by dry heat, usually in an oven

2. Broiling - cooking food by direct heat over coals or under an open flame or electric unit

3. Panbroiling - cooking food uncovered in a fry pan and pouring fat off as it accumulates

4. Frying - cooking food in fat in an uncovered skillet (this includes panfrying and deep fat frying)

B. Moist heat methods - these methods are routinely used to cook less tender cuts of red meat as well as older poultry.

1. Braising and pot roasting - browning food in a small amount of fat and then cooking slowly in a covered utensil

2. Cooking in liquid - covering food with water and cooking at a simmering temperature in a covered pan

X. Rules to remember in cooking red meats

Meat is cooked to improve flavor, change its color, make it more tender, and destroy harmful organisms. As meat cooks, the protein of the lean coagulates and the protein of the connective tissue is softened.

A. Tenderize less tender cuts - this can be accomplished by marinating, pounding cut of meat with a mallet or cleaver, or by using a commercial tenderizing powder.

B. Use correct method of meat cookery.

C. Low cooking temperatures (below 300° F.) produce meat that is juicy, tender, and flavorful. Meat shrinks less, fewer nutrients are lost in drippings, and clean-up is easier when low cooking temperatures are used.

D. Cook meat only until it reaches the desired degree of doneness - rare, medium, or well-done. Doneness can be tested by using a meat thermometer or by cutting a slit in the meat and noting the color and degree of doneness inside. Pork should be cooked thoroughly in order to destroy the harmful organism called trichina, which may cause serious illness.

XI. Uses of meats in recipes

A. Casserole

B. Pastry

C. Pizza

D. Sandwich

E. Salad

F. Soup

G. Sauce

H. Fondue

I. Stuffing

XII. Proper storage of meats

All kinds of meat, including cooked meat, spoil quickly and should be stored carefully.

A. Refrigerate or freeze fresh meats as soon as possible after purchase - meat stored in the refrigerator should be placed in the coldest part and used within one or two days. Meat stored in the freezer should be stored at 0°F. or below.

B. Wrap meats in moisture-resistant material before freezing for longer than a week. It may be necessary to rewrap meat to be stored in the freezer to avoid dehydration or freezer burn.

C. Follow storage instructions given on labels of processed and canned products.

D. Store canned products in a cool, dry place.

E. Refrigerate or freeze leftovers promptly.

Poultry XIII. Terms and definitions (HO 2)

A. **Poultry** - any bird that is raised for meat

B. **Giblets** - the edible organs of poultry; liver, gizzard, and heart

C. **Guineas** - domesticated fowl; speckled or white in color

D. **Capon** - a full-breasted, desexed male bird weighing from 4-8 pounds, having a high proportion of white meat

E. **Yearling** - turkey less than 15 months old

F. **Gosling** - young goose

G. **Squab** - young pigeon

H. **Truss** - wing tips of bird are turned back onto the shoulder and the drumsticks tied to the tail

I. **Fricassee** - braising poultry

J. **Pate** - an appetizer made from a liver paste

K. **Fowl** - a stewer chicken

XIV. Contribution of poultry to the diet

A. Complete protein

B. Minerals - iron and phosphorus

C. Vitamin - B vitamins (thiamine, niacin, and riboflavin)

D. Relatively low in calories (ducks and geese are exceptions)

XV. Selecting and buying forms of poultry

A. Fresh - ready to cook (feather, head, feet, and inner parts have been removed)

  1. Whole
  2. Cut (more expensive than whole)
    a. Halves
    b. Quarters
    c. Pieces
  3. Separate parts (most expensive) - all breast, all thighs, etc.

B. Frozen (turkeys, guineas, rock cornish hens)

  1. Whole
  2. Parts
  3. Roasts and rolls
  4. Stuffed
  5. Prepared dishes

C. Canned (cooked and canned)

  1. Whole
  2. Pieces (boneless meat)
  3. Pastes (chicken and turkey) - good for sandwiches
  4. Prepared dishes (stews, fricassees, etc.)

XVI. Inspection and grades

A. USDA grade stamp indicates quality of the poultry

  1. US Grade A - top quality
  2. US Grades B and C - lower quality

B. Inspection stamp must appear on all poultry sold across state lines

XVII. Classes of poultry

A. Broiler-fryers - youngest and tenderest chicken

B. Roasters - older chicken than broiler-fryer chickens

C. Capons - very tender but more expensive, 5-8 pound desexed male chicken, larger than roaster

D. Stewers or fowl - older and less tender than broiler-fryers and roasters; have more flavor

E. Yearling - turkeys under 15 months old

F. Mature - turkeys older than 15 months

G. Ducklings - young ducks

H. Squab - young pigeons

I. Goslings - young geese

XVIII. How much poultry to buy

A. Depends on number and size of servings needed

B. For whole bird or parts that contain bone figure 1/2 pound or more per serving.

C. Duckling, rock cornish hens, and guineas usually have less meat, pound-for-pound, than other poultry.

XIX. Ways to serve poultry

A. Main dish (lunch or dinner)

B. Ingredient in salads

C. Ingredient in soups, stews, and gumbos

D. Ingredient in casseroles

E. Appetizer (chicken livers and liver pates)

XX. Use of leftovers poultry

A. Pot pie

B. Soup, stew, or gumbo

C. Casserole

D. Salads

- E. Quiche
- F. Omelet

XXI. Preparation of poultry

- A. Use low to moderate temperature (keeps protein tender and meat juicy).
- B. Use dry heat methods to cook young poultry.
  1. Roasting
     - a. Young turkeys, chickens, ducks, and geese can be roasted.
     - b. Wash bird under cold running water.
     - c. Pat dry.
     - d. Place in shallow pan, breast-side up.
     - e. Season cavity with salt and pepper unless the bird will be stuffed.
     - f. Roast the bird at 325°F until meat thermometer reaches 185°F; remove from oven.
     - g. Let stand 10-15 minutes for easier carving.
     - h. Large birds should be trussed before roasting.
     - i. To prevent overbrowning of the breast, cover the breast of a large bird loosely with foil.
  2. Broiling (and rotisserie)
     - a. Young turkeys and chicken can be broiled.
     - b. Split the bird into halves or quarters.
     - c. Place pieces on broiler pan and brush with melted butter.
     - d. Broil 4-5 inches from the heat source.
     - e. Chicken will usually take about 40 minutes; turkey 80-90 minutes.
     - f. Remove pieces from broiler as soon as they are cooked and keep them warm until ready to serve.
  3. Frying
     - a. Tender chickens and turkeys can be cut into pieces and fried.
     - b. Roll pieces in flour, egg, and bread crumbs or dip them in batter.

c. Brown pieces in about ½ inch of hot fat.

d. Turn pieces with tongs as they brown.

e. After browning, the pieces can finish cooking in the skillet over low heat or in a moderate oven.

f. Chicken pieces can also be oven-fried.

  1) Coat pieces with seasoned flour and place on baking sheet.

  2) Cook in moderate oven until done (brushing with butter occasionally).

C. Use moist heat methods to cook older poultry.

1. Braising

  a. Brown individual pieces in a small amount of fat.

  b. Add a small amount of water to the skillet and cover tightly.

  c. Cook over low heat until tender (45 minutes to 1 hour).

  d. For a crisp crust, uncover the pan for the last 10 minutes of cooking.

2. Stewing

  a. Put bird in big kettle and cover completely with water.

  b. Carrots, celery, and seasonings can be added for flavor.

  c. Cover kettle tightly and simmer over low heat until bird is tender.

3. Pressure cooking - follow directions with cooker.

4. Follow any cooking direction on labels which may accompany poultry.

5. Always cook poultry completely at one time to prevent growth of bacteria.

6. Watch timing carefully; overcooking causes the meat to be tough, dry and flavorless.

7. Use a meat thermometer to test accurately for doneness.

8. Poultry must be cooked to well-done stage.

XXII. Care and storage of poultry

A. Fresh

1. Store as soon as possible after purchase in the refrigerator at 35-40°F.
2. Use within two days. Cut-up poultry in more perishable than a whole bird.
3. Remove wrapping and replace loosely.
4. Wrap giblets and store them separately.
5. Rinse a dressed bird inside and out with water before storing.

B. Frozen

1. Cooked or raw poultry will keep its quality in the freezer at 0°F for up to 1 year if whole and 6 months if cut up.
2. Store in waterproof wrapping.
3. Thawing poultry before cooking is not necessary but will make cooking more uniform throughout and will shorten cooking time.
4. Frozen stuffed poultry must be cooked while still frozen.
5. Poultry should be thawed in the refrigerator.
6. If rapid thawing is necessary, place the poultry in a waterproof container under cool water.
7. Cook defrosted poultry immediately.

C. Stuffing

1. Make the stuffing and put it into the bird before roasting.
2. Do not stuff uncooked poultry before freezing.
3. Do not allow stuffing to stand at room temperature for any length of time because it spoils easily.
4. Stuffing which is packed into the bird's body may spoil even in the refrigerator and will not get warm enough when roasted.
5. If stuffing must be prepared in advance, store it in the refrigerator in a covered container and put it into the bird just before roasting time.
6. Any leftover poultry should be loosely covered and placed immediately in the refrigerator.

7. Remove any leftover stuffing from the bird and refrigerate separately.

8. Use leftover poultry and stuffing within two days.

Fish XXIII. Terms and definitions

A. **Brine** - salt water solution

B. **Chowder** - cream soup with chunks of seafood

C. **Fillet** - sides of fish, cut lengthwise from the backbone, boneless

D. **Drawn** - cleaned only; scales, head, tail, and fins must be removed

E. **Fish steaks** - cross section slices of fish with bone

F. **Shucked** - removed from shell

G. **Sticks** - pieces of fish cut from fillets, or formed from chopped fish, usually in 1 ounce portions

H. **Whole (round) fish** - as the fish comes from the water

I. **Dressed fish** - entrails, head, fins, and scales removed, ready to cook.

XXIV. Contribution of fish to the diet

A. Complete protein

B. Low fat

C. Relatively low in calories

D. Minerals - phosphorus, calcium, and iodine (in saltwater fish)

E. Vitamins - B, A and D in fat in fish (fish liver oil)

XXV. Classes of fish

A. Finfish

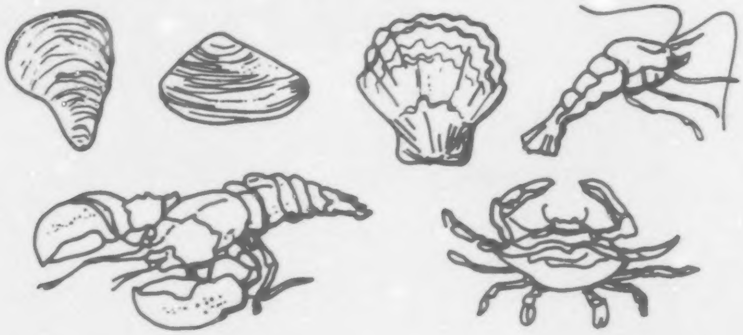
1. With fins and a backbone: may be freshwater fish living in rivers or lakes such as white fish, brook trout, pickerel, or yellow perch

2. Saltwater fish living in the ocean such as haddock, cod, bluefish, or salmon

B. Shellfish

1. Without fins and a backbone; may be mollusks, having two enclosing shells such as clams, oysters, scallops, or mussels

2. Crustaceans, having a hard upper shell and a soft under shell, such as shrimp, lobster, crab, or prawns



XXVI. Forms in which fish is available

A. Fresh fish

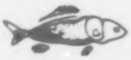
1. Highest in quality

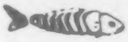
2. Lowest in price when in season

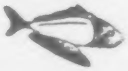
3. Available in all styles and cuts

    a. Whole or round

    b. Drawn

    c. Dressed 

    d. Steaks 

    e. Fillets 

B. Frozen fish

1. Packaged whole, in steaks, fillets, chunks, portions, sticks, breaded with seasonings added, in special dishes such as croquettes and appetizers

2. Ready for cooking (some is already cooked); all waste parts have been removed.

3. Prepared frozen fish looks and tastes much like fresh fish.

C. Cured fish

1. Salted fish

    a. Salted with dry salt or salt water, then dried (dry salt codfish)

        b. Kept in brine (brine-packed salmon or mackeral)

    2. Smoked fish is made by treating a mildly salted fish with smoke.

       NOTE: Some small fish are packed in oil after smoking, such as anchovies and sardines.

    3. Pickled fish is cured in a brine that contains vinegar and sometimes spices. (herring)

D. Canned fish

    1. Packed according to the size of the pieces in the following styles

        a. Fancy, or solid

        b. Chunk

        c. Flaked or grated

    2. Packed in oil, water, or sauces

    3. Already cooked

    4. Serve cold, heated, or as an ingredient in a recipe.

    5. Keeps well

XXVII. Techniques in buying fish

A. Fresh fish must be well-refrigerated and packed on ice.

B. Look for these characteristics of freshness:

    1. The eyes are bulging and clear-looking.

    2. The gills are bright red.

    3. The scales cling tightly to the skin.

    4. The fins feel stiff.

    5. The flesh has a mild odor and is firm and elastic to the touch.

C. Make sure frozen fish is solidly frozen.

D. Frozen fish should be tightly wrapped.

E. Any bread coating should be crisp.

F. Fish may carry the US grade shield when official standards are met. (This is a voluntary program, so grading cannot be relied on as a guide to quality.)

  1. Grade A indicates top quality with few defects and pieces uniform in size.

  2. Grade B or C indicates lower quality with a less attractive appearance.

G. Bulging or leaking cans denote spoiled food and should not be bought.

H. The shell covering fresh shrimp should be firmly attached and the shrimp should be odorless.

I. The tail of live lobster should snap back quickly after it is flattened.

J. Live oyster and clam shells should be tightly closed or they should close when touched.

K. Shucked oysters and clams should be plump, creamy in color, and odorless.

XXVIII. How much fish to buy

A. Only one fourth of a whole fresh fish is edible; the rest is waste.

B. The shell of shellfish is waste.

C. There is no waste in fillets, frozen fish, and some kinds of cured fish.

D. Amount to buy varies with the kind of fish, how it is served, the number of people, and the size of each serving.

XXIX. Ways to serve fish

A. Appetizers

B. Chowder, stews, and cream soups

C. Main dishes, alone

  1. Creamed

  2. Fried

  3. Loaves and croquettes

  4. Stuffed, baked whole

D. Main dish casserole

XXX. Ways to use leftover fish

A. Salads

B. Sandwiches

C. Souffles

D. Creamed dishes

E. Casseroles

F. Sauces

XXXI. Preparation of fish - general guidelines

A. Use moderate to low cooking temperatures.

B. Cook fish until completely done, but do not overcook. Fish cooks quickly.

C. Fish is done when the flesh looks milky-white and separates easily with a fork.

D. Fish needs no tenderizing.

XXXII. Methods of cooking fish (HO 3) (TM 8)

A. Dry heat methods

1. Baking

a. Place in a greased baking dish.

b. Season to taste or as recipe directs.

c. Bake at 350°F until done.

d. If desired, baste with a sauce or melted butter to prevent dryness.

2. Broiling - pieces of fish about 1 inch thick are good for broiling

a. Place on greased broiler pan. Brush with melted fat or a sauce to prevent drying.

b. Place pan 2 to 4 inches from the heat source.

  - c. Dressed fish or fish steaks will probably need to be turned halfway through cooking.

3. Barbecuing
   - a. Grease the grill well to prevent sticking.
   - b. Cook about 4 inches from hot coals.
   - c. If desired, baste with a sauce or marinade.
   - d. Thick pieces will need to be turned once.

4. Frying
   - a. Dip pieces in a liquid such as beaten egg, milk, or French dressing or in a batter and then in crumbs, seasoned flour, or cornmeal.
   - b. Heat fat to about 375°.
   - c. For panfrying, the fat should be about 1/8 inch deep in a skillet. For deep-fat frying, use enough oil to completely cover the pieces.
   - d. Cook until golden brown.

5. Ovenfrying
   - a. Dip and coat pieces as for regular fried fish.
   - b. Place in a well-greased baking pan.
   - c. If desired, baste with a sauce or marinade.

B. Moist heat methods

1. Poaching
   - a. If desired, wrap fish in cheesecloth.
   - b. Use enough liquid (water, milk, or broth) to just cover the fish.
   - c. Simmer until fish is cooked.

2. Steaming
   - a. Wrap fish in cheesecloth. Shellfish should remain in shell.
   - b. Place on a well-greased rack over boiling water.

c. The steam will cook the fish or shellfish.

XXXIII. Care and storage of fish

A. Cover fresh fish tightly with foil or plastic wrap.

B. Place fresh fish in coldest part of the refrigerator at 34-40°.

C. Use fresh fish within 1-2 days.

D. Cooked seafood should be covered, refrigerated and used within 3-4 days.

E. Cook live shellfish immediately and eat it as soon as possible.

F. Frozen fish will keep successfully up to 3 months at a freezer temperature of 0°F.

G. Frozen fish should be tightly covered with a moisture-proof wrap.

H. It is best to cook frozen fish while it is still frozen or only slightly defrosted.

I. If fish thaws, it should be cooked immediately; do not refreeze.

J. Keep salted fish covered tightly and store in a cool place.

K. Cured fish should be stored in the refrigerator.

L. Canned fish will keep a long time in any convenient storage place.

M. After canned fish is opened, it should be used promptly.

N. Frozen fish should be thawed in the refrigerator for about 24 hours, or under cold running water for about an hour. It should not be thawed at room temperature.

gumes XXXIV. Terms and definitions

A. **Meat analogues** - soybean products that look and taste like bacon, sausage, ham, and/or chicken

B. **Meat extenders** - products which can be added to ground beef or processed meat to make it go farther

C. **Tofu** - bean curd made from soybeans and often cooked with vegetables

XXXV. Contribution of legumes to the diet

A. Incomplete protein (soybeans provide complete protein)

NOTE: Since different legumes contain different amino acids, when two legumes are combined it may be possible to get all necessary amino acids. Legumes can also be combined with grains or animal protein to provide the essential amino acids.

B. Iron

C. B vitamins

D. Carbohydrate (starch)

XXXVI. Buying legumes - general guidelines

A. Legumes are usually low in cost and high in nutrition; use them frequently.

B. Grading is not required, so there is no consistent standard of quality.

C. When no grade is given, buy legumes sold in see-through packages.

D. Choose legumes with a uniform bright color, which indicates freshness.

E. Choose legumes of uniform size so they cook more evenly.

F. Choose legumes with no visible defects, foreign material, cracked coats, insect holes or other signs of poor quality.

G. To save time, choose canned legumes which are already cooked.

XXXVII. Types of legumes (HO 4)

A. Black-eyed peas (black-eyed beans or cow peas) Small white beans with black spots; used as a main dish, vegetable, and in casseroles

B. Garbanzo (chickpeas)-nut-flavored, round; available canned; used in salads, soups, or as a main dish

C. Kidney beans (red beans) - large, dark-red with kidney shape; used in chili, salads, many Mexican dishes, and sometimes in baked beans

D. Lima beans (butter beans) - broad and flat; size varies; used as a main dish, vegetable, and in casseroles

E. Navy beans - small, white, oval beans with bland flavor; used for soups and old-fashioned baked beans; combine well with many foods

F. Pinto beans - oval with pink dots; used in salads and chili, or as main dish

G. Red and pink beans - more delicate flavor than red beans; used in Mexican dishes.

H. Soybeans - most nutritious of all beans; distinct nut-like flavor; combine well with other foods; used to make analogues, most extenders, and tofu

I. Dried peas - may be yellow or green, whole or split; green have a more distinct flavor than yellow; split peas are whole peas with skin removed and split in half. All can be used for similar purposes.

J. Lentils - disc-shaped legume, size of peas; combine well with other foods

K. Peanuts - tan-colored oval nuts or beans in a shell which grown in the soil; require roasting before eating.

L. Black beans - a black legume common in African dishes

XXXVIII. Ways to serve

A. As a vegetable dish (black-eyed peas)

B. Chili and soups (kidney, navy, peas, lentils, etc.)

C. Salads (garbanzo beans and kidney beans)

D. Casseroles (navy, kidney, Pinto, lentils, peas, with rice, cheese, etc.)

E. Desserts (peanuts and peanut butter)

F. Snacks (peanuts and peanut butter roasted soybeans)

G. Meat analogues (soybeans)

XXXIX. General preparation guidelines

A. Pick over dry legumes to remove any sticks, pebbles, seeds and discolored pieces.

B. Rinse thoroughly in cool water to remove dust and dirt.

C. Most legumes need to be soaked before cooking to reduce cooking time.

NOTE: Split peas and lentils do not require soaking.

1. Cover legume with water.
2. Use about 3 cups water to 1 cup of beans.
3. Bring water to a boil and boil for 2 minutes to prevent souring.
4. Cover and let beans soak one hour to overnight.

D. Cook beans for about 2 hours in the liquid in which they were soaked. (Beans will swell to more than double their original size.)

E. Some legumes, such as soybeans, kidney beans, and navy beans may be pressure cooked. Black-eyed peas, lentils and split peas should not be pressure cooked.

        1. Fill pressure cooker no more than one third full of beans and water.

        2. Cook from 3 - 10 minutes.

    F. Legumes may be cooked in a slow cooker.

    G. Legumes may also be cooked in the microwave oven.

    H. Legumes may also be prepared by adding directly to boiling water.

    I. The addition of spices, herbs, molasses, tomatoes, onions, or fats usually is necessary to develop flavor.

    J. Good cooked legumes have a tender texture, unbroken skins and are well-flavored.

XXXX. Storage

    A. Store dry legumes in covered containers in a cool, dry place.

    B. Legumes keep a relatively long time under the right conditions.

    C. Cooked legumes should be refrigerated.

HO 1

Meat Cooking Methods

	Wholesale Cut	Retail Cuts	Cooking Method
Beef	Chuck	chuck roast shoulder roast arm roast blade roast	moist moist moist moist
	Rib	rib steak rolled rib roast standing rib roast	dry dry dry
	Short loin	T-bone steak porterhouse steak club steak	dry dry dry
	Sirloin	sirloin steak	dry or moist
	Round	rump roast round steak sirloin tip	dry or moist dry or moist dry or moist
	Shank	beef shank stew meat ground beef	dry or moist dry or moist dry
	Flank	flank steak	dry
	Plate	short ribs plate ground beef	moist moist dry
	Foreshank	arm roast beef shank	moist moist
	Brisket	corned brisket	moist

(Note: Ground beef and stew meat also come from trimmings or other carcass parts.)

	Wholesale Cut	Retail Cuts	Cooking Method
Pork	Loin	center loin roast sirloin roast loin chop tenderloin rib chop	dry dry dry dry dry
	Boston butt	blade steak sausage Boston shoulder roast	dry dry dry or moist
	Jowl	bacon sausage jowl	dry dry moist
	Picnic	arm roast arm steak picnic ham	dry moist or dry dry
	Side	salt pork spare ribs bacon	moist moist dry
	Ham	ham (butt half) ham (shank half) ham center slice hock	dry dry dry or moist moist

(Note: Sausage also comes from trimmings or other carcass parts.)

Meat Cooking Methods

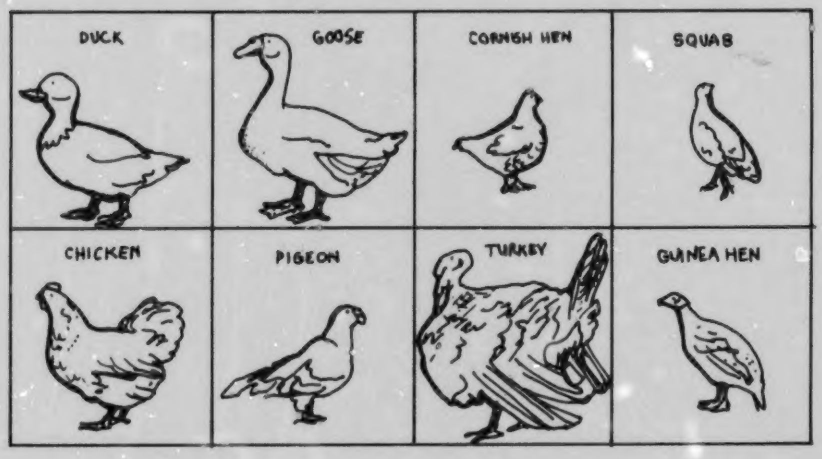
	Wholesale Cut	Retail Cuts	Cooking Method
Lamb	Shoulder	square shoulder	dry
		blade chop	dry
		arm chop	dry or moist
	Rack	rib roast	dry
		rib chop	dry
	Loin	loin roast	dry
		loin chop	dry
	Sirloin	sirloin roast	dry
		sirloin chop	dry
	Leg	shank-leg of lamb	dry
		American leg roast	dry
		leg steak	dry
		ground lamb	dry
	Breast	breast	dry or moist
		stuffed breast	dry or moist
		riblets	moist
	Foreshank	foreshank roast	moist

(Note: Ground lamb also comes from trimmings or other carcass parts.)

HO 2

KINDS OF POULTRY

TYPE	DESCRIPTION	AGE	POUNDS WEIGHT	COOKING METHOD
Chicken Broiler or Fryer	Very young, either sex, smooth thin skin, tender, small amount of fat	9-12 weeks	1½-2½	Broil Fry
Roaster	Fully developed, either sex, young, tender, smooth skin with layer of fat	3-5 months	2½-4½	Roast
Capon	Young, desexed male bird, very meaty, juicy flesh	less than 8 months	4-8	Roast
Stewing chicken or Fowl	Mature bird, coarse skin, less tender, well-developed muscle	more than 10 months	4-6	Braise Simmer Stew
Turkey Fryer or Roaster	Young, tender	15-17 weeks	4-6	Broil Fry Roast
Roaster	Young, tender	5-6 months	hen 6-14 Tom 9-24	Roast



HO 3

Timetable for Cooking Fish

Method of Cooking	Market Form	Amount for Six Servings Pounds	Cooking Temperature	Approximate Cooking Time (minutes)
Baking	Dressed	3	[350° F.]	45 to 60
	Pan-dressed	3	[350° F.]	25 to 30
	Fillets or steaks	2	[350° F.]	20 to 25
	Frozen fried fish portions (12)	Each 2½-3 oz.	[400° F.]	15 to 20
	Frozen fried fish sticks (24)	Each ¾-1¼ oz.	[400° F.]	15 to 20
Broiling	Pan-dressed	3		10 to 16 (turning once)
	Fillets or steaks	2		10 to 15
	Frozen fried fish portions (12)	Each 2½-3 oz.		10 to 15
	Frozen fried fish sticks (24)	Each ¾-1¼ oz.		10 to 15
Charcoal Broiling	Pan-dressed	3	Moderate	10 to 16 (turning once)
	Fillets or steaks	2	Moderate	10 to 16 (turning once)
	Frozen fried fish portions (12)	Each 2½-2 oz.	Moderate	8 to 10 (turning once)
	Frozen fried fish sticks (24)	Each ¾-1¼ oz.	Moderate	8 to 10 (turning once)
Deep-Fat Frying	Pan-dressed	3	[350° F.]	3 to 5
	Fillets or steaks	2	[350° F.]	3 to 5
	Frozen raw breaded fish portions (12)	Each 2½-3 oz.	[350° F.]	3 to 5
Oven-Frying	Pan-dressed	3	[500° F.]	15 to 20
	Fillets or steaks	2	[500° F.]	10 to 15
Pan-Frying	Pan-dressed	3	Moderate	8 to 10 (turning once)
	Fillets or steaks	2	Moderate	8 to 10 (turning once)
	Frozen raw breaded or frozen fried fish portions (12)	Each 2½-3 oz.	Moderate	8 to 10 (turning once)
	Frozen fried fish sticks (24)	Each ¾-1¼ oz.	Moderate	8 to 10 (turning once)
Poaching	Fillets or steaks	2	Simmer	5 to 10
Steaming	Fillets or steaks	1½	Boil	5 to 10

Adapted from National Marine Fisheries Service

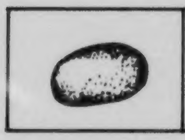
HO 4

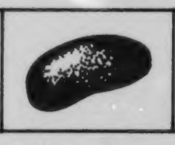
Cooking Guide for Dry Beans, Peas, and Lentils*

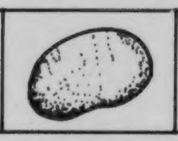
Vegetable	Amount of Water	Approximate Boiling Time	Yield
	Cups	**Hours**	**Cups**
Black beans	3	2	2
Black-eyed beans (black-eyed peas, cowpeas)	2½	½	2½
Cranberry beans	3	2	2
Great Northern beans	2½	1 to 1½	2½
Kidney beans	3	2	2¾
Lentils	2	½	2½
Lima beans, large	2½	1	2½
Lima beans, small	2½	1	2
Peas, whole	2½	1	2½
Pinto beans	3	2	2½
Soybeans	3	2½	2½
Split peas	2	⅓	2½

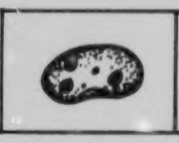
*Soak peas and beans 1 hour to one night before cooking.

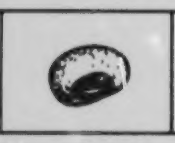
Adapted from USDA

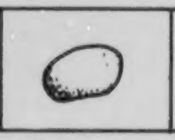

Great Northern Bean (white)

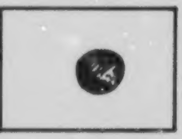

Kidney Bean (white, red, and brown)


Lima Beans (white and speckled

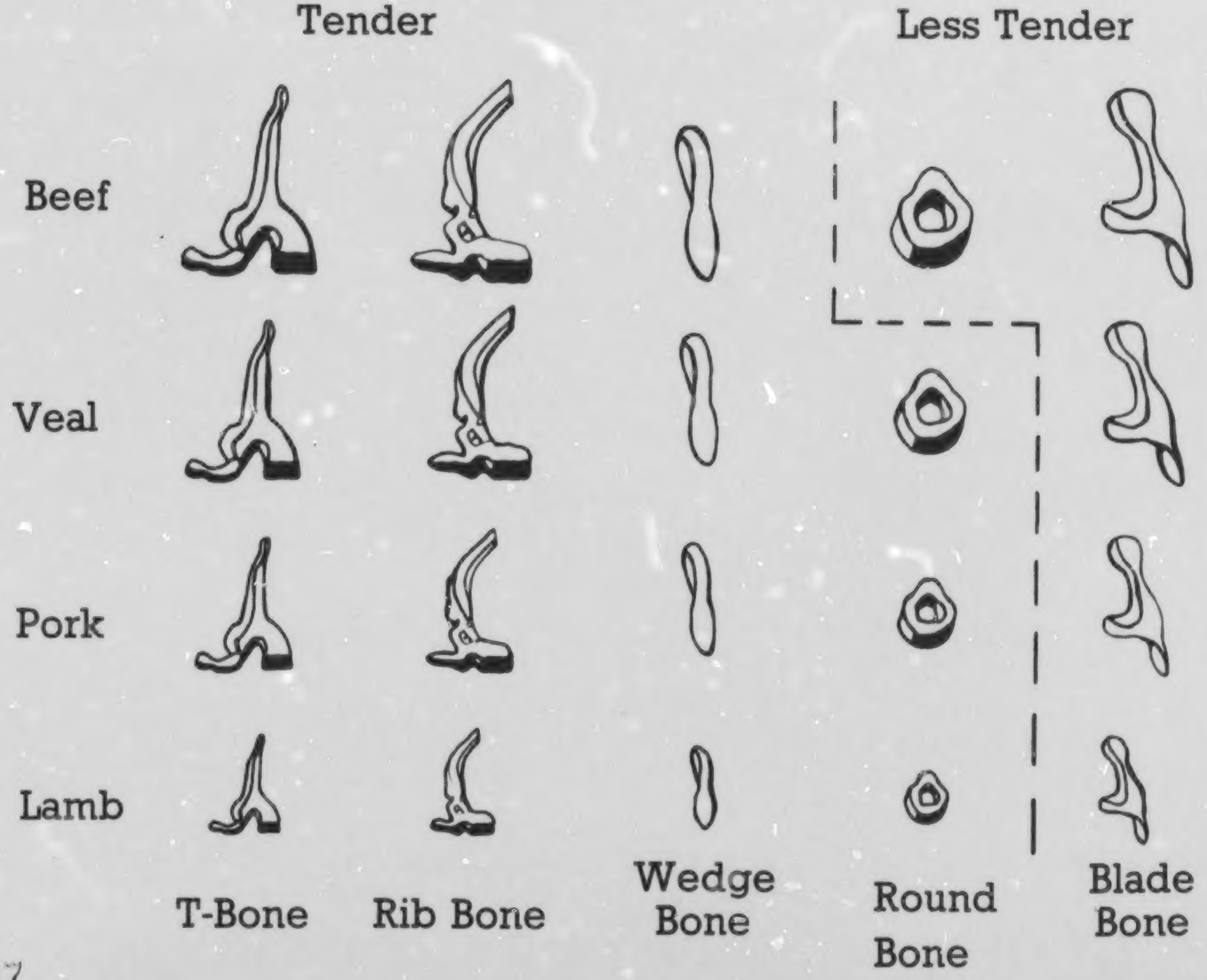

Pinto Beans (brown or pink spotted)


Black-Eyed Peas (small, white)


Navy or Pea Beans (white)


Lentils (small, brown to yellow)

Tender and Less Tender Cuts of Meat



Tender

Less Tender

Beef

Veal

Pork

Lamb

T-Bone

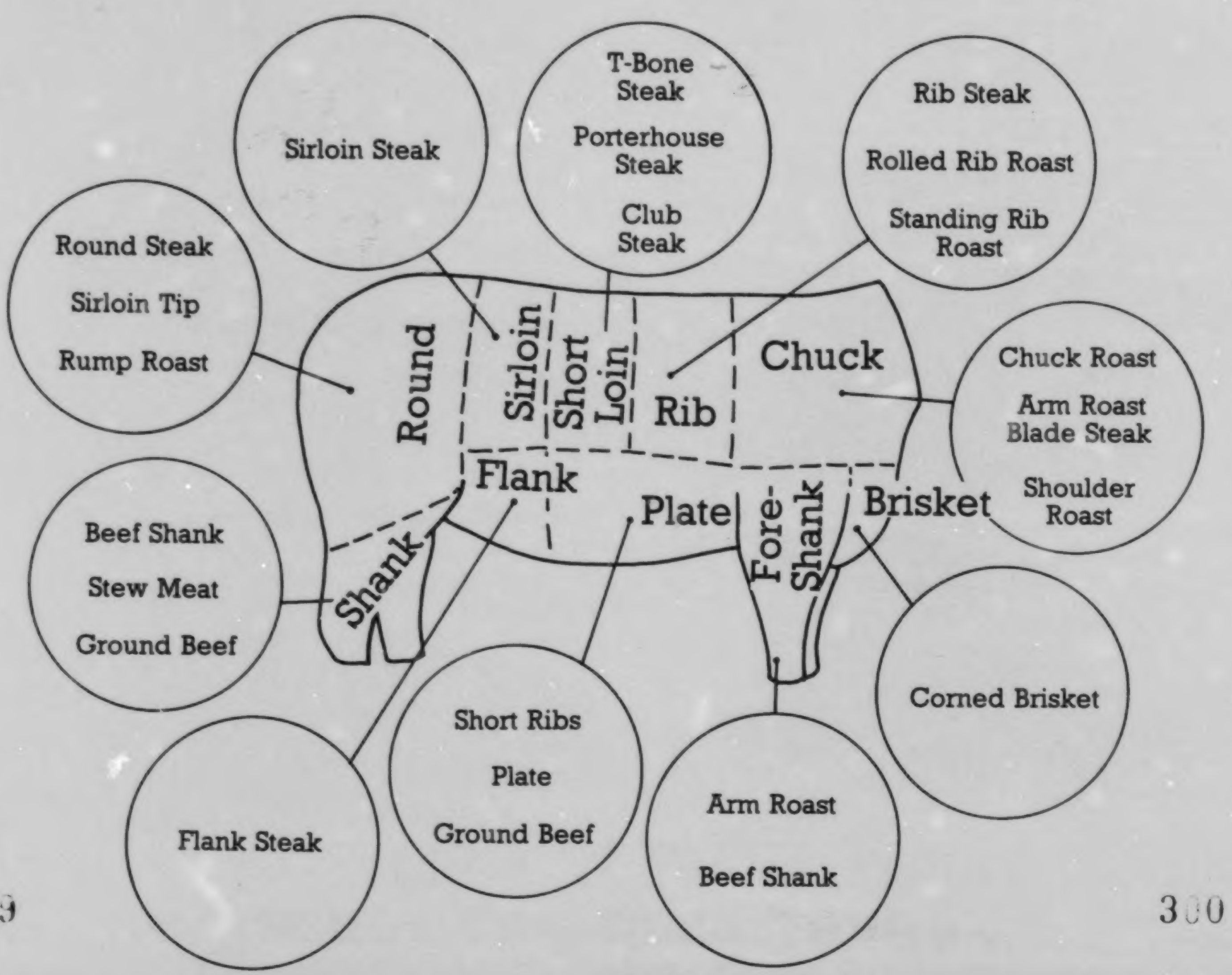
Rib Bone

Wedge Bone

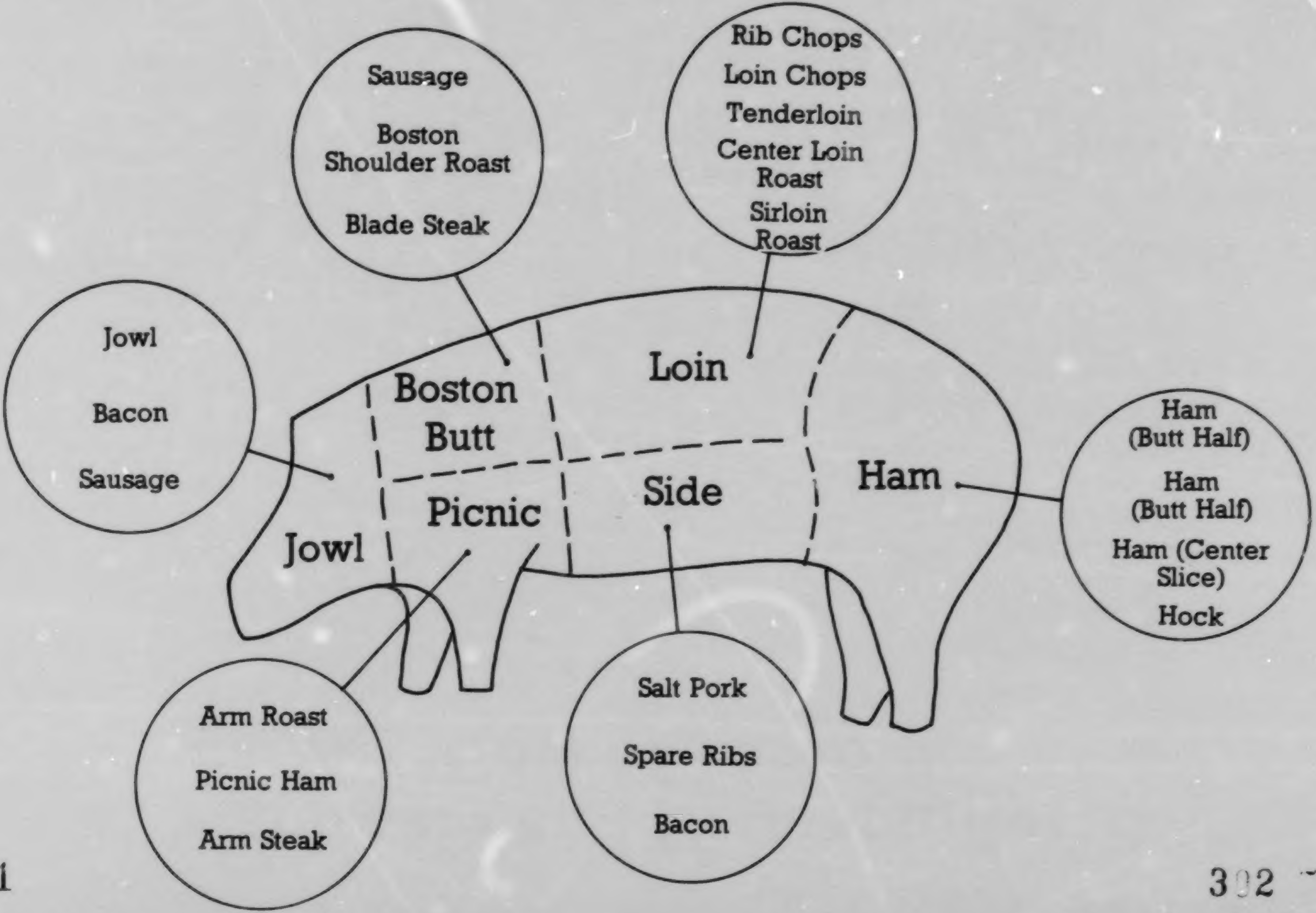
Round Bone

Blade Bone

Wholesale and Common Retail Cuts of Beef


Sirloin Steak
T-Bone Steak
Porterhouse Steak
Club Steak
Rib Steak
Rolled Rib Roast
Standing Rib Roast
Round Steak
Sirloin Tip
Rump Roast
Round
Sirloin
Short Loin
Rib
Chuck
Chuck Roast
Arm Roast
Blade Steak
Shoulder Roast
Flank
Plate
Fore-Shank
Brisket
Shank
Beef Shank
Stew Meat
Ground Beef
Corned Brisket
Flank Steak
Short Ribs
Plate
Ground Beef
Arm Roast
Beef Shank

Wholesale and Common Retail Cuts of Pork


Jowl
Boston Butt
Loin
Picnic
Side
Ham

Jowl
Bacon
Sausage

Sausage
Boston Shoulder Roast
Blade Steak

Rib Chops
Loin Chops
Tenderloin
Center Loin Roast
Sirloin Roast

Ham (Butt Half)
Ham (Butt Half)
Ham (Center Slice)
Hock

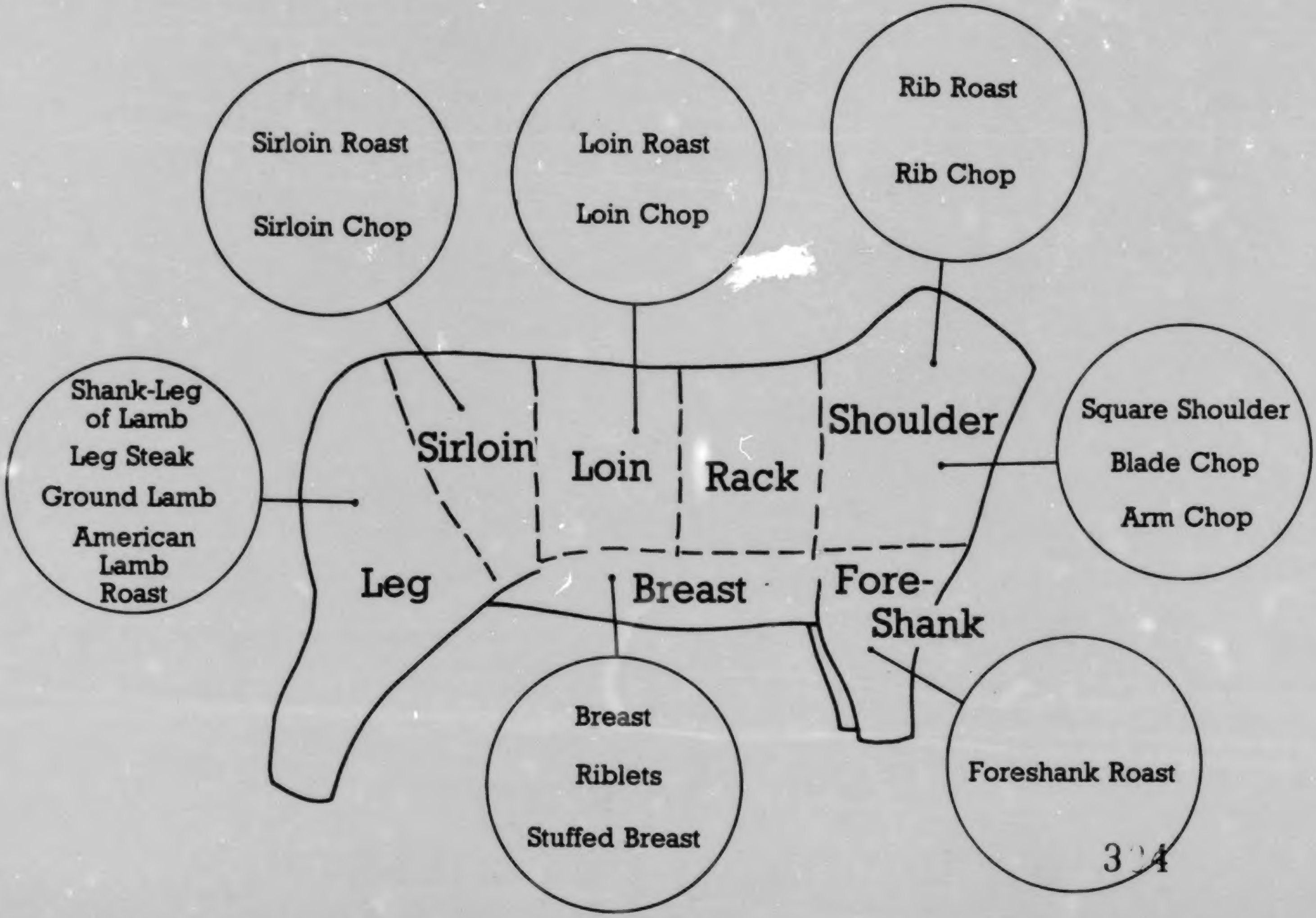
Arm Roast
Picnic Ham
Arm Steak

Salt Pork
Spare Ribs
Bacon

775

TM 3

Wholesale and Common Retail Cuts of Lamb


Sirloin
Loin
Rack
Shoulder
Leg
Breast
Fore-Shank

Sirloin Roast
Sirloin Chop

Loin Roast
Loin Chop

Rib Roast
Rib Chop

Shank-Leg of Lamb
Leg Steak
Ground Lamb
American Lamb Roast

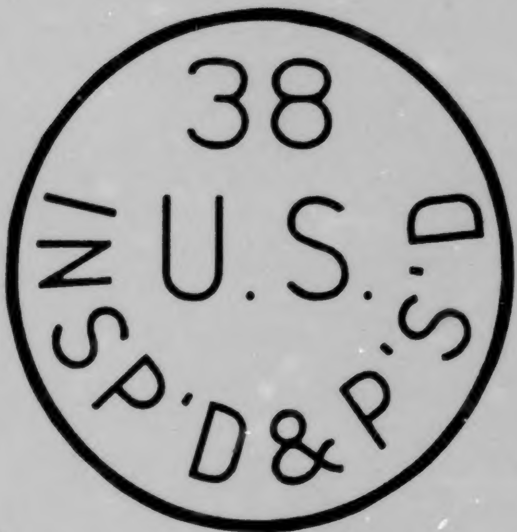
Square Shoulder
Blade Chop
Arm Chop

Breast
Riblets
Stuffed Breast

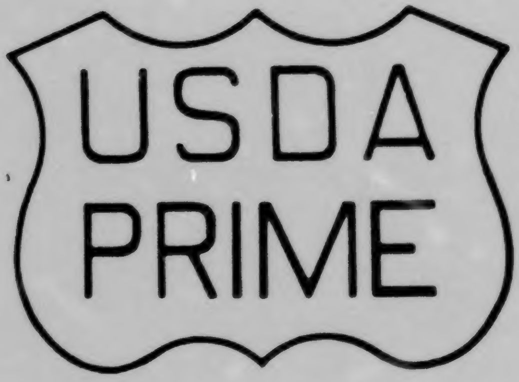
Foreshank Roast

TM 4

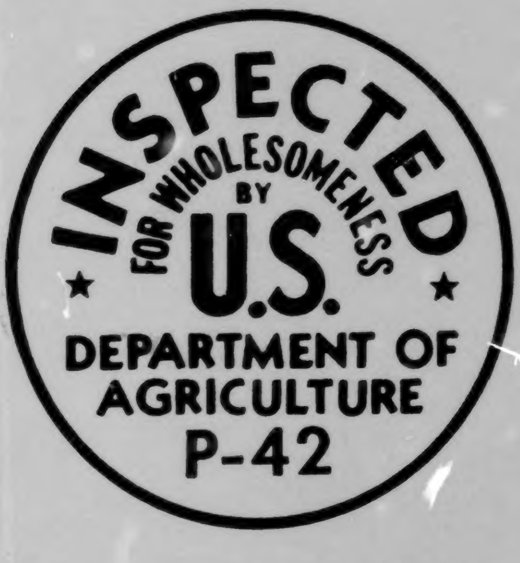
Grading and Inspection Labels


38
U.S.
INSP'D & P'S'D

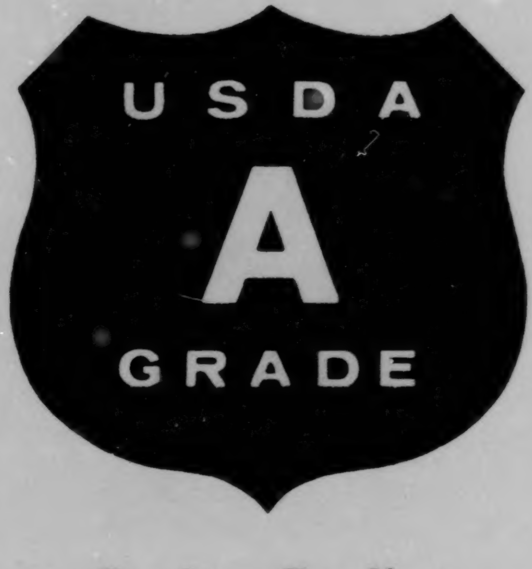
Meat Inspection



Meat Grading


INSPECTED
FOR WHOLESOMENESS
BY
U.S.
DEPARTMENT OF
AGRICULTURE
P-42

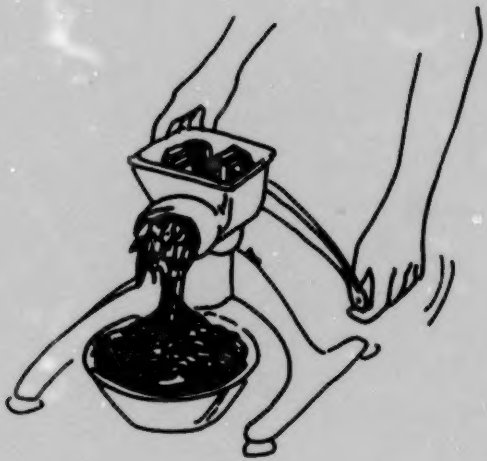
Poultry Inspection


USDA
A
GRADE

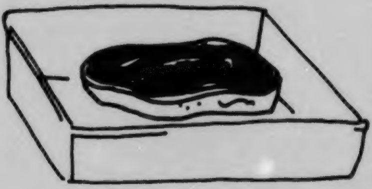
Poultry Grading

TM 6

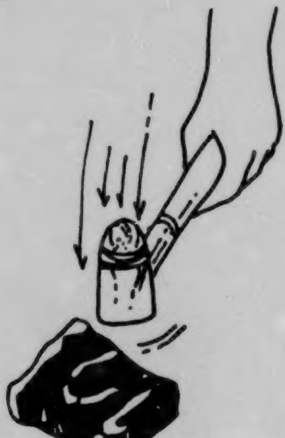
Methods of Tenderizing Meats



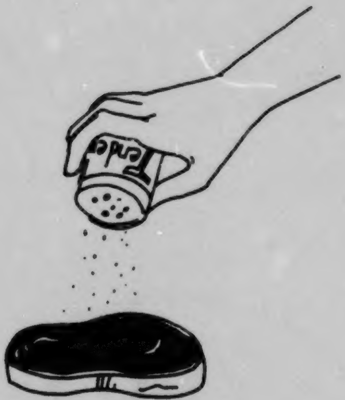
Grinding



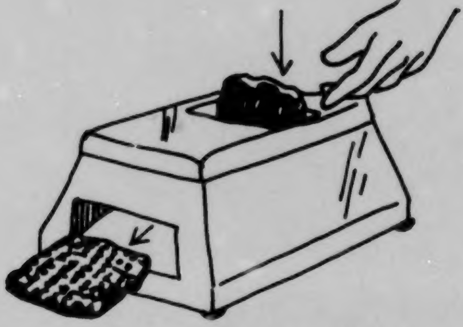
Marinating



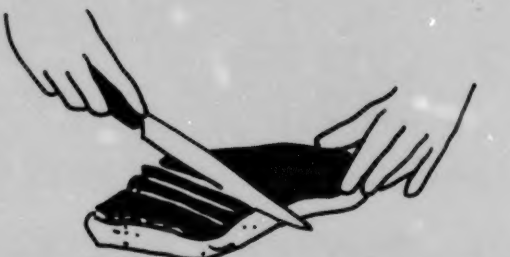
Pounding



Commercial Meat Tenderizer

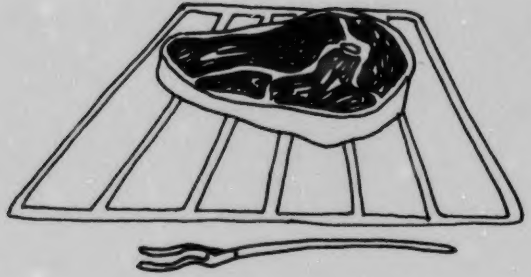


Cubing

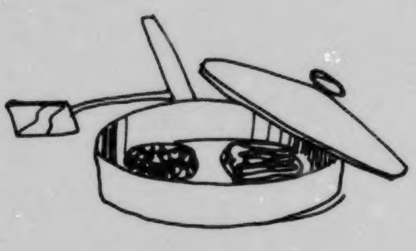


Scoring

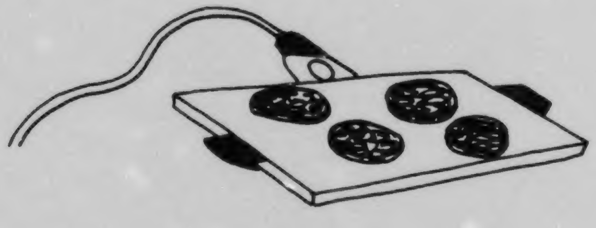
Basic Methods of Meat Cookery



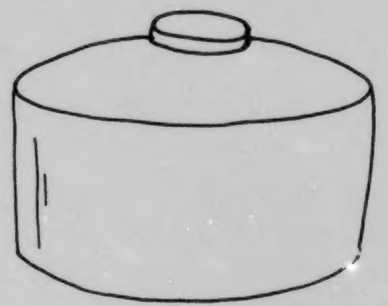
Broiling



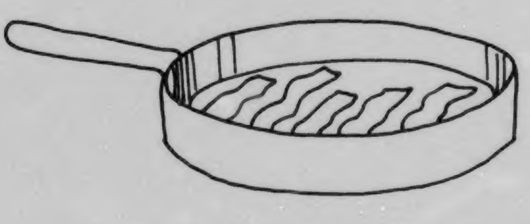
Braising



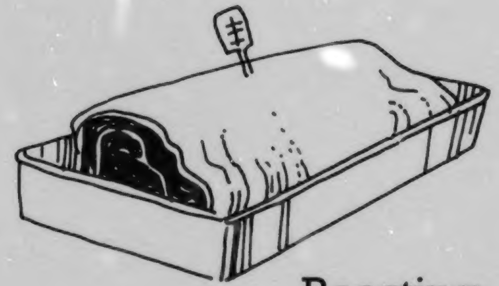
Panbroiling



Cooking in Liquid



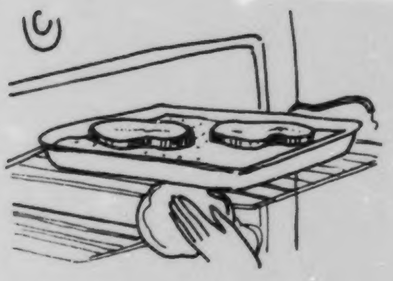
Panfrying



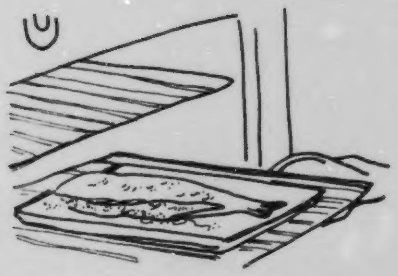
Roasting

TM 7

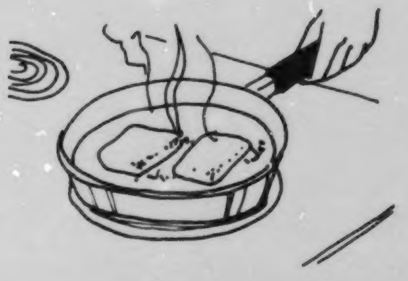
Fish Cookery



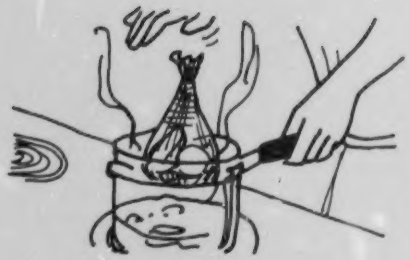
Broiling



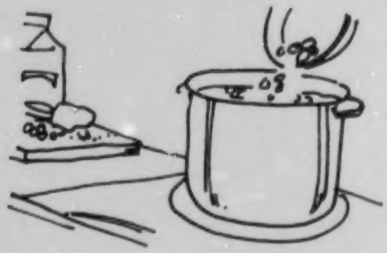
Baking



Frying



**Poaching
(using cheesecloth bag)**



Cooked in chowder

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 5: Eggs, Meats*, and Legumes

ASSIGNMENT SHEET #1: COMPARE COSTS OF AVAILABLE MEAT FORMS

NOTE: Meat prices will vary according to the time of the year, based on the seasonal supply.

Meats, meat substitutes, and foods containing meats are responsible for at least one-third of each food dollar spent at the supermarket. In order for consumers to get the most for their money, it is essential to compare prices of different meat forms.

Directions: Complete the following assignment by visiting a local supermarket or using advertisements and other available resources, such as the cable consumer station available in some larger cities.

MEAT TYPE	FORM	SIZE	TOTAL PRICE	PRICE PER POUND
Chicken	Fresh Whole			
	Fresh parts			
	Frozen			
	Precooked frozen			
	Frozen battered			
	Canned			
	Prepared food containing chicken			
	(other)			
	(other)			
Pork sausage	Fresh			
	Link			
	Frozen patties			
	Precooked			
	Bulk, plastic wrapped			
	Prepared food containing sausage			
	(other)			
	(other)			

Shrimp	Fresh			
	Frozen			
	Frozen battered			
	Canned			
	Prepared food containing shrimp			
	(other)			
	(other)			
Beef round steak	Fresh			
	Frozen			
	Frozen battered			
	Prepared food containing beef round steak			
	(other)			
	(other)			

1. **Considering information obtained from the chart, which form of each meat type was the least expensive per pound?**

   a. **Chicken** ____________________

   b. **Pork sausage** ____________________

   c. **Shrimp** ____________________

   d. **Beef round steak** ____________________

2. **Which meat forms were the most expensive per pound?**

   a. **Chicken** ____________________

   b. **Pork sausage** ____________________

   c. **Shrimp** ____________________

   d. **Beef round steak** ____________________

3. **From which one meat form would you most likely get the most servings per pound?**

   ____

ASSIGNMENT SHEET #2: EXPENSIVE AND LESS EXPENSIVE CUTS OF RED MEAT

1. By visiting a local grocery store or by comparing prices listed in the newspaper advertisements, determine the prices of the following meats per pound or per unit.

	Price per Pound	Ounces Needed per Serving	Cost per Serving
a. Sirloin steak			
b. Spare ribs			
c. Pork loin chops			
d. Ground beef			
e. Bacon			
f. Liver			
g. Round steak			
h. Beef arm roast			
i. Ham			

2. How many ounces of each of these meats should you buy per serving? Calculate the cost per serving of each of the above meats by dividing the price per pound by the number of servings you can get from one pound.

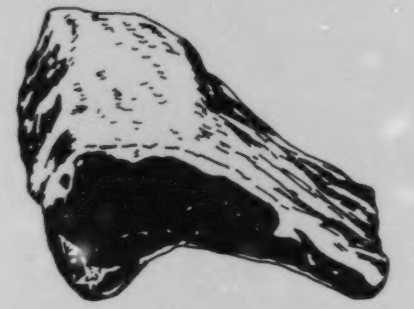
UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 5: Eggs, Meats*, and Legumes

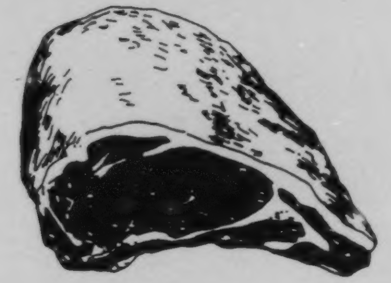
ASSIGNMENT SHEET #3: LABEL CUTS OF RED MEAT BY GRADE

1. Study these pictures of four beef rib roasts. Label the cuts by determining which cuts are USDA prime, choice, good, and standard grades. State factors used in making your selections.

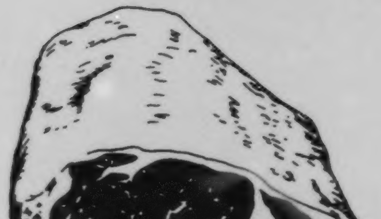
a.



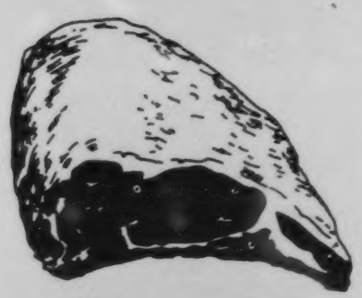
b.



c.



d.



2. Assume you are a young homemaker who is trying to save money yet wanting the most for your money. Under these circumstances, which of the four cuts of meat would you buy? Why?

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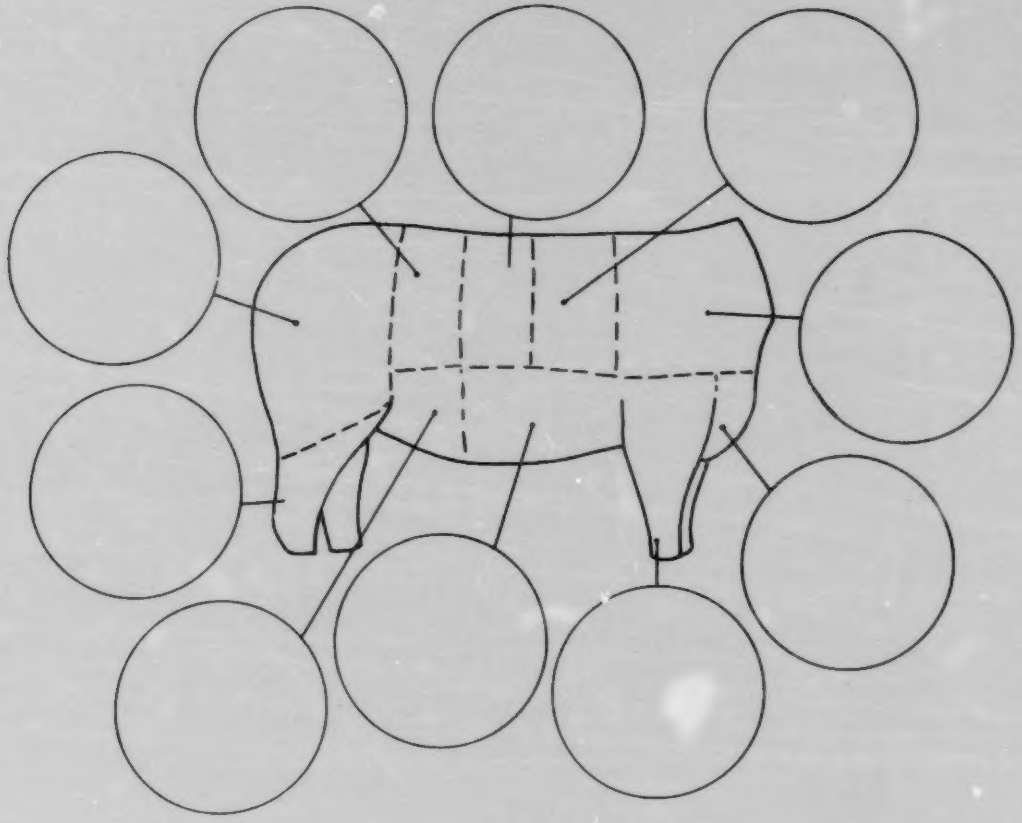
UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 5: Eggs, Meats*, and Legumes

ASSIGNMENT SHEET #4: WHOLESALE AND COMMON RETAIL CUTS OF BEEF

Directions: Fill in the diagram as your instructor shows the transparency of wholesale and common retail cuts of beef and pictures of cuts from these sections. Also, shade in with your pencil those wholesale cuts which are tender.

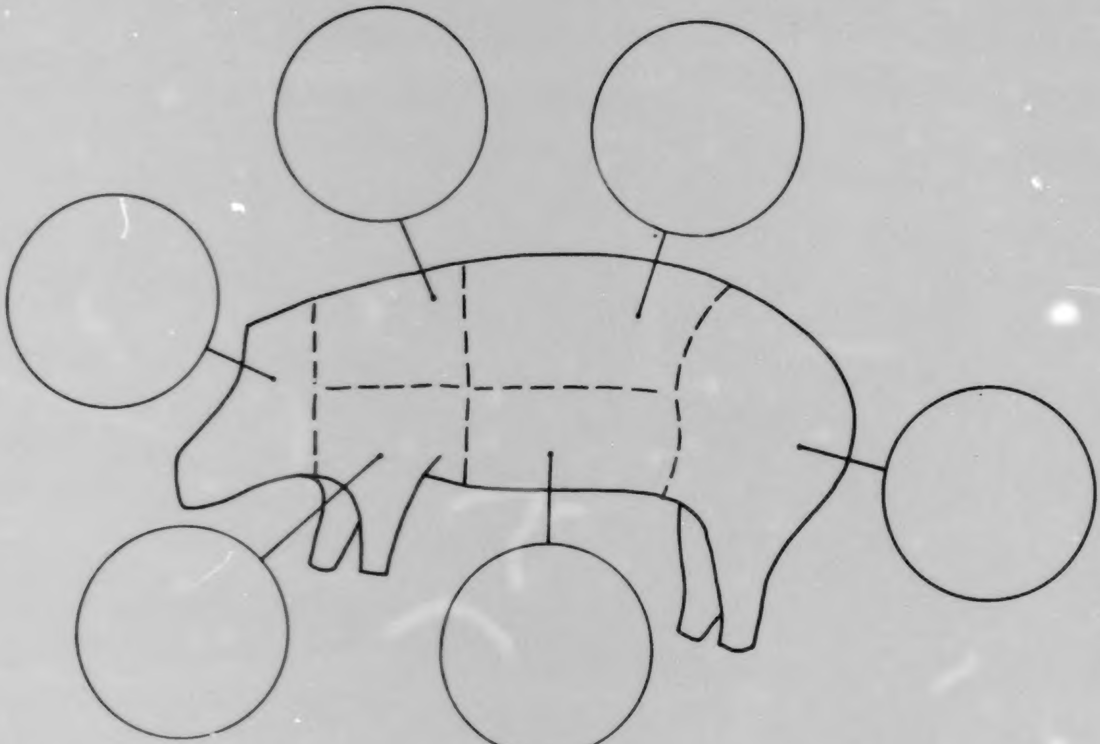


UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 5: Eggs, Meats, and Legumes

ASSIGNMENT SHEET #5: WHOLESALE AND COMMON RETAIL CUTS OF PORK

Directions: Fill in the diagram as your instructor shows the transparency of wholesale and common retail cuts of pork and pictures of cuts from these sections.

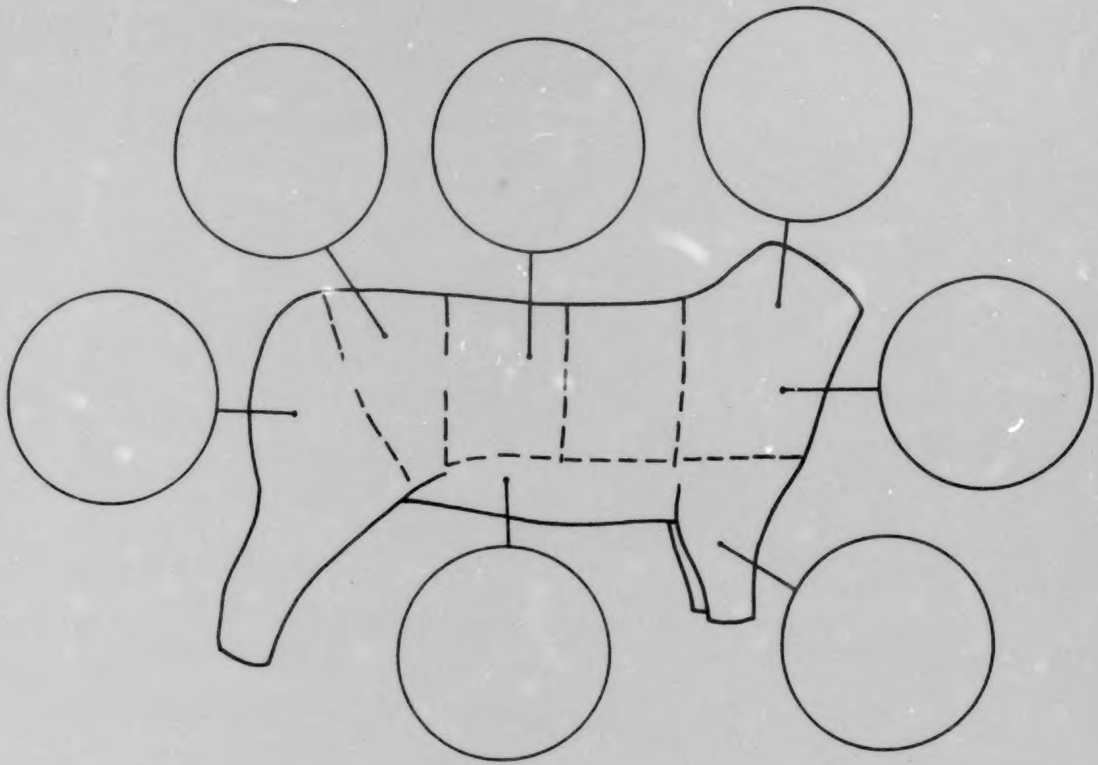


UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 5: Eggs, Meats*, and Legumes

ASSIGNMENT SHEET #6: WHOLESALE AND COMMON RETAIL CUTS OF LAMB

Directions: Fill in the diagram as your instructor shows the transparency of wholesale and common retail cuts of lamb and pictures of cuts from these sections.



UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 5: Eggs, Meats*, and Legumes

ASSIGNMENT SHEET #7: RED MEATS IDENTIFICATION REVIEW: SOURCES OF COMMON COMMERCIAL CUTS

Do the following commercial cuts come from beef, pork, or lamb? Indicate your response(s) by placing a "B" for beef, "P" for pork, or "L" for lamb to the left of each cut of meat. Some cuts may apply to more than one kind of meat.

____ 1. Rib steak

____ 2. Ham steak

____ 3. Loin chop

____ 4. Blade pot-roast

____ 5. Sirloin roast

____ 6. Ham roast

____ 7. Club steak

____ 8. Blade chop

____ 9. T-Bone steak

____ 10. Picnic shoulder

____ 11. Rib roast

____ 12. Round steak

____ 13. English chop

____ 14. Boston butt

____ 15. Porterhouse steak

____ 16. Sirloin steak

____ 17. Blade steak

____ 18. Sirloin chop

____ 19. Leg chop

____ 20. Square cut shoulder

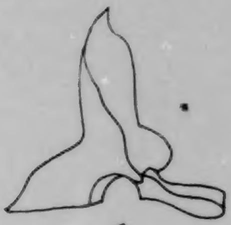
UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 5: Eggs, Meats*, and Legumes

ASSIGNMENT SHEET #8: REVIEW OF BONE SHAPES OF RED MEAT

Directions: Answer the questions about each bone shown below.

1.

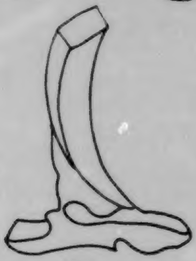


a. Name of bone:

b. One cut on which it is found:

c. Tender or less tender?

2.

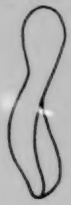


a. Name of bone:

b. One cut on which it is found:

c. Tender or less tender?

3.

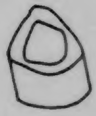


a. Name of bone:

b. One cut on which it is found:

c. Tender or less tender?

4.

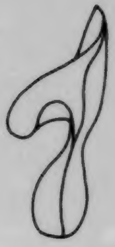


a. Name of bone:

b. One cut on which it is found:

c. Tender or less tender?

5.



a. Name of bone:

b. One cut on which it is found:

c. Tender or less tender?

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 5: Eggs, Meats*, and Legumes

ASSIGNMENT SHEET #9: RED MEAT COOKERY METHODS

Directions: Students are to complete the chart below during teacher demonstration or filmstrip on meat cookery. Use as a study sheet.

Method of Cooking	Steps and Procedure	Meat Cuts Suitable

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 5: Eggs, Meats*, and Legumes

ASSIGNMENT SHEET #10: RED MEAT PREPARATION PROBLEMS-REVIEW

Directions: Help the people in the situations below solve their problems. Write your answer in the space provided.

1. Kay will be gone all day and will have less than an hour to prepare dinner. She doesn't like hamburger and hot dogs and is tired of having cold cuts. Name a meat which she could have amd tell which cooking method she would use.

2. Susan has eight people in her family with average adult appetites. She is planning to purchase a pork loin roast and does not want any leftovers. About how many pounds should she purchase? What is your reason for your answer.

3. You are going to have a picnic and are planning on serving hamburgers to a total of 10 teenagers. You decide to plan on each person eating two hamburgers. How many pounds of hamburger should you buy? Give the reason for your answer.

4. Mr. Smith is planning to have round steak for dinner. What would be the best way for him to prepare this? Describe at least three steps in the procedure for this preparation method.

5. What are two cuts of meat Kay could have if she has the day off from work and therefore has more than her usual hour to prepare a meal? Tell which method of meat cookery she would use for each cut.

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 5: Eggs, Meats*, and Legumes

ASSIGNMENT SHEET #11: IDENTIFICATION OF BEEF CUTS AND COOKERY METHODS REVIEW

Identify the following cuts of beef and give at least one recommended method of preparation. Choose from the following cuts of beef:

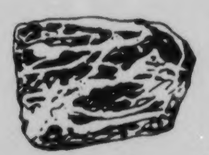
Rib roast (standing)
Rib roast (rolled)
Arm roast
Rump roast
Club steak

Sirloin steak
Round steak
Chuck steak (blade)
Flank steak
Ground beef

Stew meat
Short ribs
Brisket
Plate
T-bone steak

1. Name:

How prepared:



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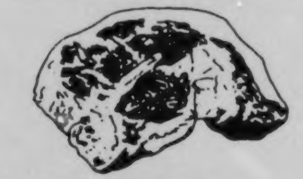
2. Name:

How prepared:



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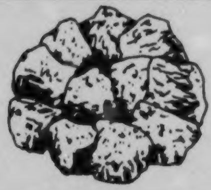
3. Name:

How prepared:



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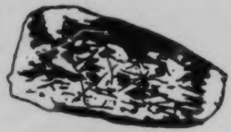
4. Name:

How prepared:



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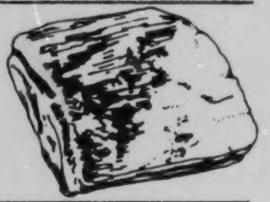
5. Name:

How prepared:



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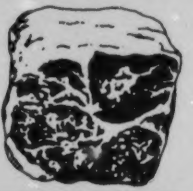
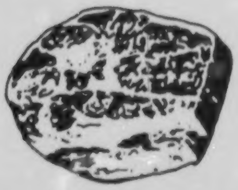
6. Name:

How prepared:



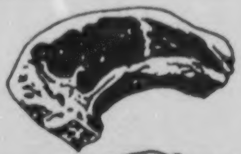
7. Name:

How prepared:



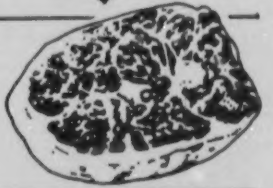
8. Name:

How prepared:



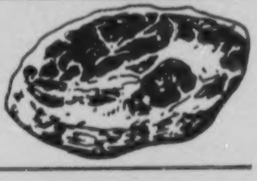
9. Name:

How prepared:



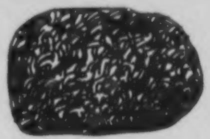
10. Name:

How prepared:



11. Name:

How prepared:



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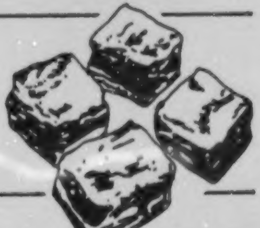

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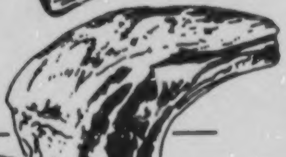
How prepared:



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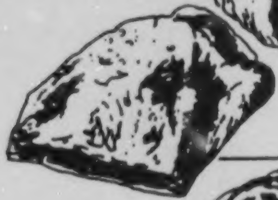

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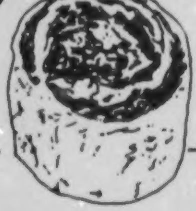


UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 5: Eggs, Meats*, and Legumes

ASSIGNMENT SHEET #12: IDENTIFICATION OF PORK CUTS AND COOKERY METHODS REVIEW

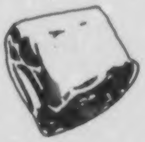
Identify the following cuts of pork and give at least one recommended method of preparation. Choose from the following cuts of pork:

Loin roast
Rib chop
Smoked picnic
Ham slice
Boston shoulder
Sausage
Hock
Slab bacon
Spare ribs

---

1. Name:

How prepared:



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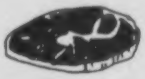
2. Name:

How prepared:



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3. Name:

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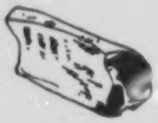

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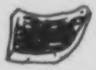

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5. Name:

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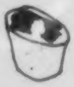

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6. Name:

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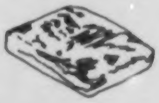

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7. Name:

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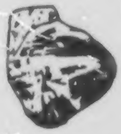

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8. Name:

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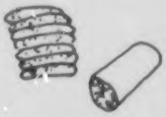

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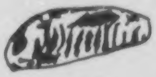
9. Name:

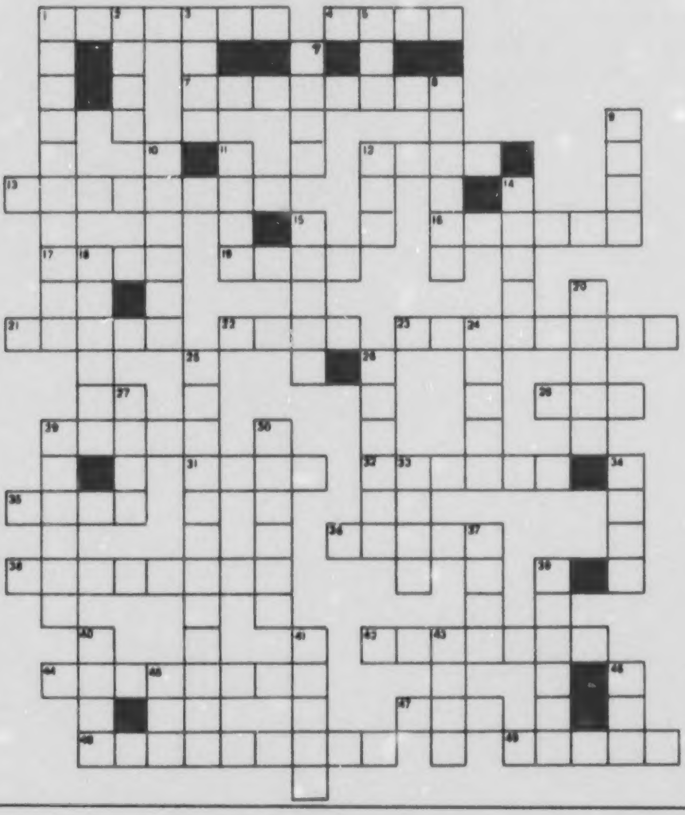
How prepared:

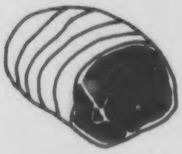


UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 5: Eggs, Meats*, and Legumes

ASSIGNMENT SHEET #13: CROSSWORD PUZZLE - GENERAL REVIEW





Across

1. Thick steaks are best cooked by this method.
4. When meat is roasted, an . . . pan is used.
7. When meat is cooked, the connective tissue is. . .
12. Meats cooked to a . . . stage are more juicy than well-done meats.
13. All meats cooked in moist heat should be. . .
16. Less tender cuts of beef are generally . . . in liquid.
17. In broiling, three or four inches from the heat is a . . . distance to keep the meat.
19. All cuts of young . . . of good quality are tender.
21. The . . . of good quality beef fat is white.
22. The most tender sections of . . . are the rib and loin cuts.
23. Meat supplies large amounts of . . .

28. A . . . of lamb will provide from 2 to 4 servings per pound.
29. In preparing Swiss steak, . . . is pounded into the meat.
31. Variety meats are high in this nutrient
32. Fry or broil bacon until . . . crisp, turning once.

35. Lard and vegetable shortenings and oils (except olive oil) are suitable . . . for deep frying.
36. Use a knife . . . for slicing a roast or ham.
38. . . . priced cuts of meat can be just as tasty as expensive cuts if cooked properly.
42. Some meats are cured by . . .
44. A high temperature causes a roast to . . . in volume.
47. Freshly cut good quality beef is bright . . . in color.
48. When cooking different kinds of roasts, it is helpful to consult a . . .
49. Beef . . . is the largest but is less tender than the others.

Down

1. ...of meats is done in a small amount of liquid.
2. Choice grades of chuck, round, or rump can be . . . roasted.
3. The round, rump, flank, and chuck are the . . . tender cuts of beef.
5. Thin cuts of pork may be . . . broiled or fried.
7. Small pieces of meat are used in a . . .
8. When meat is broiled, it is subjected to . . . heat.
9. If hamburger patties are packed tightly, they will be . . . when cooked.
10. A rib roast is a . . . cut of meat.
11. . . . fat frying is one method used for cooking meat in fat.
12. It is not safe to eat . . . pork.
14. Braising and cooking in liquid are . . .-heat methods.
15. Commercial meat tenderizers are best used with meats to be . . . or broiled.
18. Meats deep fried in vegetable . . . contain more calories than similar broiled meats.

20. . . . should be included in meals at least once each week.
24. . . . and spices add flavor to meat.
25. Fresh meat is highly . . .
26. Variety meats are usually cooked well . . .
27. There is less . . . of moisture and fat when meat is cooked at low temperatures.
29. Aging in the cooling rooms of a packing house contributes to the . . . and tenderness of beef.
30. Meat that is cured such as . . . beef keeps longer than fresh meat.
33. . . . is produced from animals three months old or less.
34. . . . steaks are usually best pan broiled or fried.
37. Roasted medium beef has a . . . center.
39. A variety meat.
40. A thermometer is useful to . . . for doneness of a roast.
41. . . . may be used to season poultry dressing and meat loaf.
43. If meat tenderizers are used, they are sprinkled . . . the meat prior to cooking.
45. Rare beef has a narrow . . . of brown surrounding a bright-red center.
46. Meat should be loosely packaged in the refrigerator to allow . . . to flow over it

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 5: Eggs, Meats*, and Legumes

ASSIGNMENT SHEET #14: MEAT WORD SEARCH - GENERAL REVIEW

O	S	M	E	A	A	G	I	N	G	D	O	N	T	Y	O	R	O	U	N	D	S	N	I	A	R	B
M	O	P	Q	R	Z	A	R	J	E	C	U	R	E	D	P	E	P	Q	O	T	H	W	U	N	M	A
A	U	L	E	L	P	R	O	T	E	I	N	B	O	B	N	D	A	L	B	M	A	L	E	T	A	C
N	P	W	U	M	O	P	N	W	A	F	L	O	H	F	F	L	O	I	N	T	N	C	C	E	L	O
O	S	U	V	N	A	D	U	N	B	R	N	E	L	E	K	U	D	T	C	D	K	Q	U	T	T	N
H	T	O	N	Y	C	I	O	N	A	E	I	V	E	T	C	O	C	E	U	G	N	O	T	E	I	B
N	O	P	Q	A	M	H	N	D	Z	S	O	B	N	X	A	H	T	R	I	B	T	U	S	N	A	V
L	C	I	B	E	R	C	E	D	D	H	D	N	Y	K	L	S	P	A	R	E	R	I	B	C	N	B
C	K	H	A	E	M	O	R	O	I	E	B	O	R	N	O	U	A	T	I	F	C	R	O	H	E	A
A	F	R	V	O	V	F	M	E	N	S	E	E	F	O	R	K	N	A	L	F	O	N	T	X	D	F
N	O	I	E	X	A	L	U	R	T	M	H	E	A	L	I	R	P	D	A	E	C	H	U	C	K	I
N	L	E	V	V	A	L	O	U	A	N	E	T	I	O	E	L	M	V	F	R	H	E	A	R	T	A
E	F	T	H	T	H	C	Z	E	G	Q	D	A	W	O	S	H	O	E	O	S	H	B	N	K	U	M
D	U	G	A	V	J	B	A	G	O	N	L	N	T	W	O	K	B	A	R	N	I	O	L	R	I	S
P	O	K	O	R	G	A	N	M	E	A	T	S	L	T	S	G	R	L	E	S	Y	E	N	D	I	K

1. This form of meat has had no special treatment done to it.
2. Process which brings about desirable changes that contribute to the flavor and tenderness of meat.
3. This form of meat has been treated with such materials as sugar, salt, and spices.
4. An example of cured meat, popular with Irish.
5. An example of cured meat used in sandwiches.
6. This form of meat has been fully cooked.
7. This meat is made of one or several kinds of meat ground together.
8. This form of meat may be eaten cooked or uncooked.
9. __________ in meat vary with fat content.

10. Meat __________ is good quality for growth, repair, and maintenance of the body.

11. Meat is an important source of this mineral.

12. __________ is an important source of iron.

13. __________ __________ do contain vitamin A.

14. Chief use of meat.

15. One use of meat when the meat contains much bone

16. Beef cut from hind quarter.

17. A variety meat from the head

18. Young sheep

19. Cut of meat under back bone

20. Picnic __________

21. Leg of beef

22. Variety meat from the mouth

23. In processing, the animal is divided into meat __________

24. The __________ roast is one of the most tender beef cuts

25. Pork cut popular for barbecue

26. Beef cut from underside of animal

27. Beef cut from shoulder

28. Young beef

29. Steak from loin section

30. Variety meat; also symbol for Valentine's day

31. Variety meat

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 5: Eggs, Meats*, and Legumes

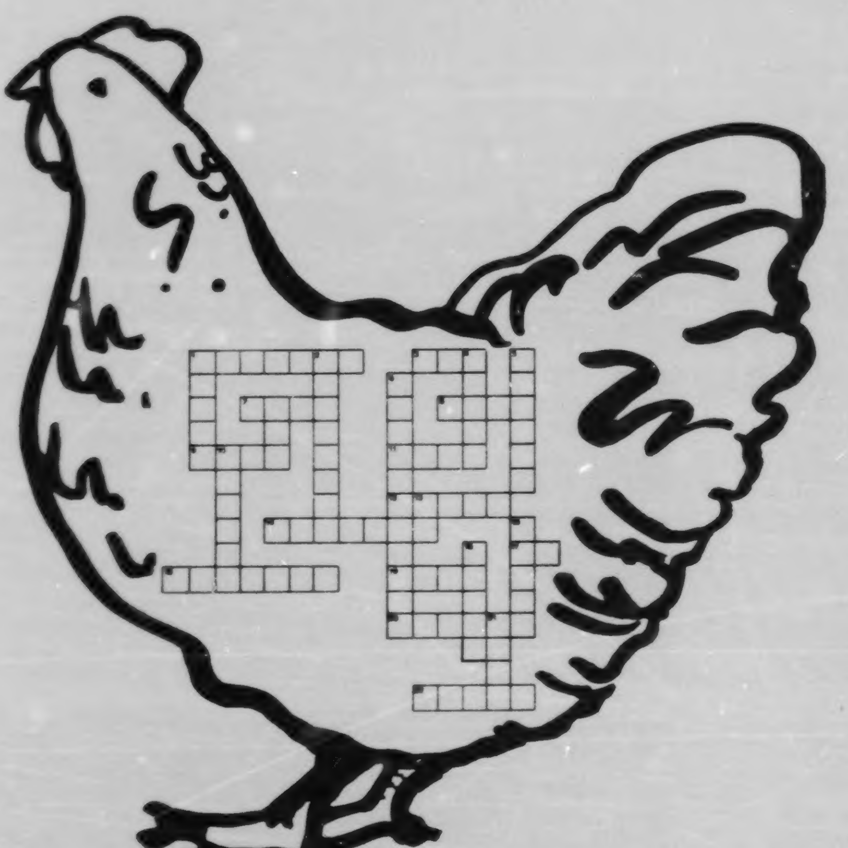
ASSIGNMENT SHEET #15: POULTRY PUZZLE

ACROSS

1. edible birds
3. a chicken product
7. used to roast turkey
8. dry-heat method of cooking
9. best method for cooking tough birds
11. appetizer
12. very tender chicken
14. heart, gizzard
17. inspects imported products
18. Rock ___ Hen
19. aroma
20. young pigeons
22. used in pate

DOWN

1. cut-up poultry
2. melt fat
4. quality
5. white meat
6. interstate commerce requires them
10. young poultry is more ___
13. cook ___ directed
15. poultry that is high in fat
16. ingredient in stuffing
21. chicken pies need to ___



UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 5: Eggs, Meats*, and Legumes

ASSIGNMENT SHEET #16: INTRODUCTORY FISH SURVEY

Directions: Answer the questions below and discuss with rest of the class.

1. How often do you usually eat fish?

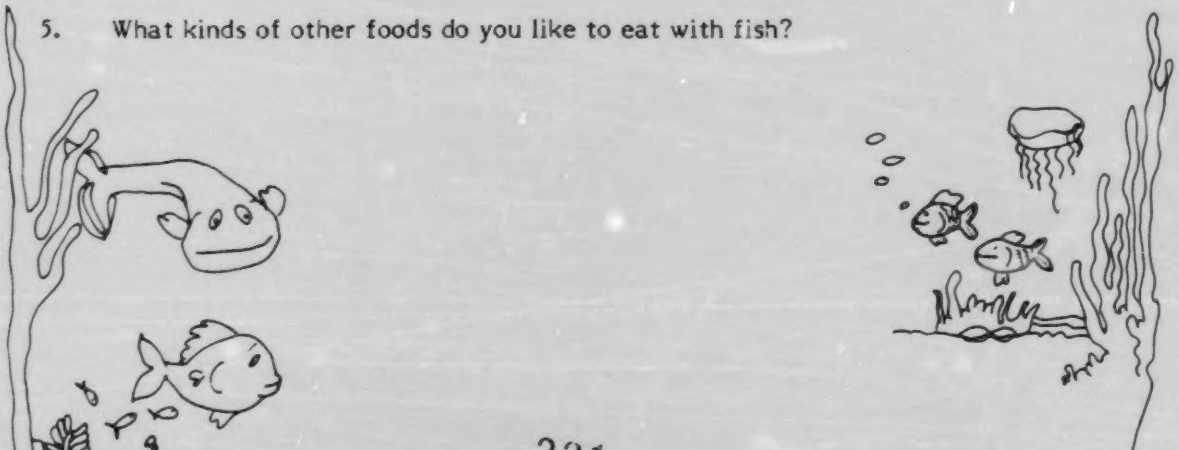
    a. 2-3 times a week
    b. Once a week
    c. Once every 2 weeks
    d. Once a month
    e. 3-4 times a year
    f. Once a year

2. Name the kinds of fresh water fish you have eaten.

3. Name the kinds of salt water fish you have eaten.

4. What kind of fish do you like the best? How do you like it prepared?

5. What kinds of other foods do you like to eat with fish?



UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 5: Eggs, Meats*, and Legumes

ASSIGNMENT SHEET #17: FISH CIPHER

Directions: In this box cipher, it takes two numbers to make one letter. If the number is 23, look across line 2 and down row 3. The letter is H. Find each word below by using the box cipher - then in a few words or a sentence tell how each term relates to fish. Use the back of this page.

	1	2	3	4	5
1	A	B	C	D	E
2	F	G	H	I/J	K
3	L	M	N	O	P
4	Q	R	S	T	U
5	V	W	X	Y	Z

A

21	24	31	31	15	44

B

32	34	31	31	45	43	25

C

35	34	11	13	23

D

44	42	34	45	44

E

13	23	34	52	14	15	42

F

43	32	34	25	15	14

G

34	54	43	44	15	42

H

44	15	33	14	15	42

I

43	13	11	31	31	34	35

J

13	42	45	43	44	11	13	15	11	33

K

14	15	15	35	21	42	54

L

23	15	42	42	24	33	22

M

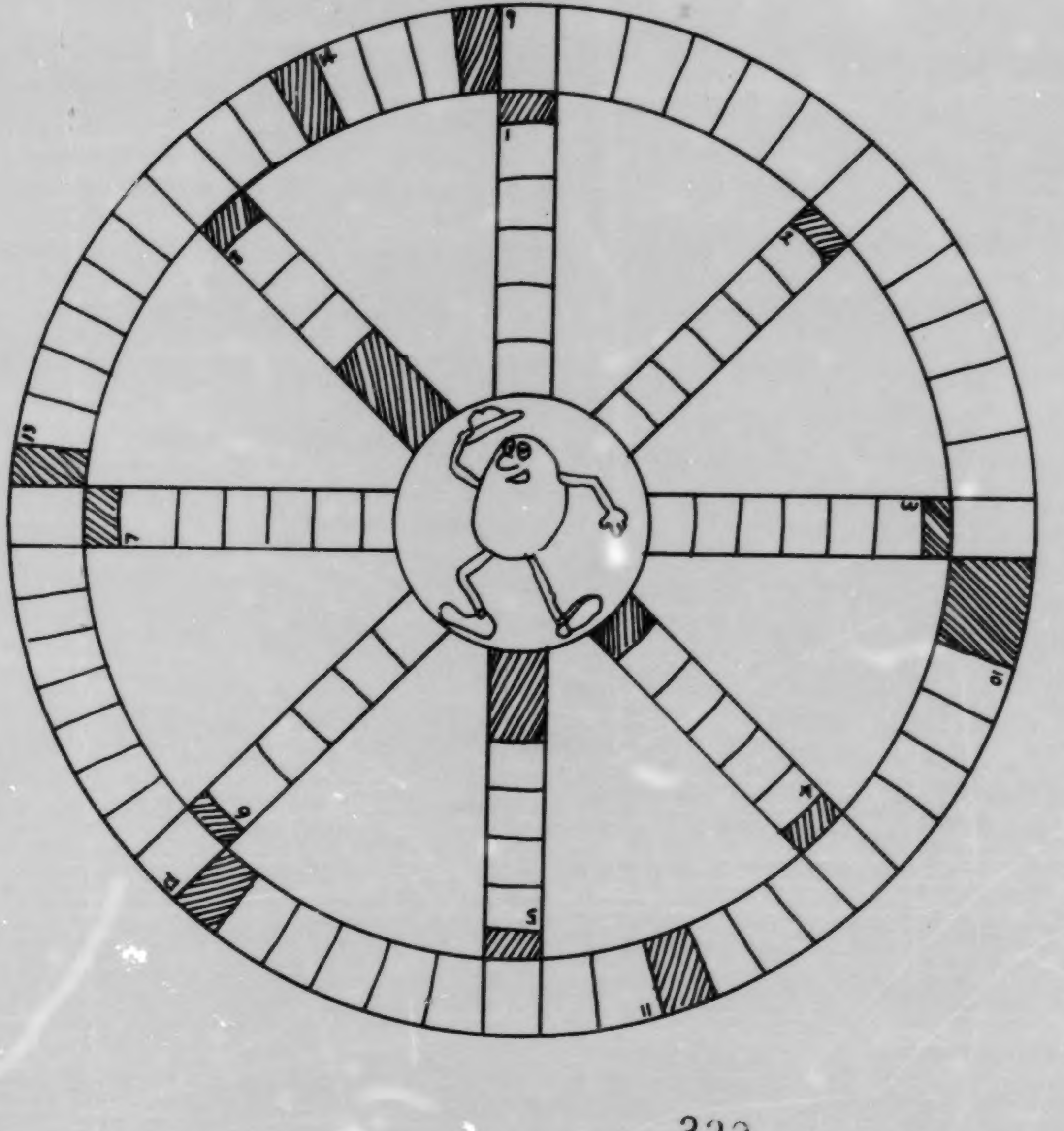
22	24	31	31	43

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 5: Eggs, Meats*, and Legumes

ASSIGNMENT SHEET #18: WHEEL OF LEGUMES

Directions: Using the descriptions on the following page, write the name of the legume in the appropriate spaces below.



1. Broad, flat bean also called butter beans
2. A tan-colored oval nut or bean in a shell that grows underground
3. Pea-sized, disc-shaped legumes
4. Bean common in African dishes
5. Bean that is small and white with a bland flavor
6. Bean with pink dots
7. Bean which is dark red with a kidney shape
8. _____________ and pink beans are more delicate in flavor than red beans
9. Small white beans with black spots
10. Nutflavored and round
11. Most nutritious of all beans
12. May be yellow or green, whole or split.
13. Another name for garbanzo beans
14. ___________ peas is another name for black-eyed peas.

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 5: Eggs, Meats*, and Legumes

ASSIGNMENT SHEET #19: LEGUMES RECIPES

Directions: Find 3 recipes in cookbooks using 3 different legumes and complete the information below.

Recipe # 1:

1. Name of cookbook and page number of recipe

2. Name of recipe

3. Name of legume(s) used in recipe

4. Way recipe is to be served (salad, casserole, soup, etc.)

5. List main preparation steps and the approximate length of time for each (include any soaking).

6. What is total preparation time?

7. Nutritional value

    a. Does this recipe call for more than one incomplete protein or a complete protein?

    b. If so, what?

    c. Why would this be beneficial?

8. Cost

   a. Approximate cost of dish (optional since prices may not be available)

   b. Is this cost less than, the same as, or more than a meat dish such as hamburgers?

9. Appeal

   a. Would you prepare this dish for your family?

   b. Why or why not?

Recipe #2:

1. Name of cookbook and page number of recipe

2. Name of recipe

3. Name of legume(s) used in recipe

4. Way recipe is to be served (salad, casserole, soup, etc.)

5. List main preparation steps and the approximate length of time for each (include any soaking).

6. What is total preparation time?

7. Nutritional value

   a. Does this recipe call for more than one incomplete protein or a complete protein?

b. If so, what?

c. Why would this be beneficial?

8. Cost

   a. Approximate cost of dish (optional since prices may not be available)

   b. Is this cost less than, the same as, or more than a meat dish such as hamburgers?

9. Appeal

   a. Would you prepare this dish for your family?

   b. Why or why not?

Recipe #3:

1. Name of cookbook and page number of recipe

2. Name of recipe

3. Name of legume(s) used in recipe

4. Way recipe is to be served (salad, casserole, soup, etc.)

5. List main preparation steps and the approximate length of time for each (include any soaking).

6. What is total preparation time?

7. Nutritional value

   a. Does this recipe call for more than one incomplete protein or a complete protein?

   b. If so, what?

   c. Why would this be beneficial?

8. Cost

   a. Approximate cost of dish (optional since prices may not be available)

   b. Is this cost less than, the same as, or more than a meat dish such as hamburgers?

9. Appeal

   a. Would you prepare this dish for your family?

   b. Why or why not?

Conclusions: What have you learned from this assignment?

a.

b.

c.

d.

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UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 5: Eggs, Meats*, and Legumes

ANSWERS TO ASSIGNMENT SHEETS

Assignment Sheet 1

Answers will vary but evaluation should be based on completeness of chart and accuracy of information according to prices available. Comparison answers should be appropriate to information on chart.

Assignment Sheet 2

Answers will vary. Evaluation should be based on completeness of chart and accuracy of calculations.

Assignment Sheet 3

1. a. Standard
   b. Choice
   c. Prime
   d. Good

2. Good because this grade would be more economical; with proper cooking methods it could be made tender and is just as nutritious and flavorful as top grades. The standard grade may not be available for purchase and may require too much effort to tenderize.

Assignment Sheet 4

Diagram should be completely filled in according to TM originals.

Assignment Sheet 5

Diagram should be completely filled in according to TM originals.

Assignment Sheet 6

Diagram should be completely filled in according to TM originals.

Assignment Sheet 7

1. B
2. P
3. P, L
4. B
5. L, P
6. P
7. B
8. L
9. B
10. P
11. B, L, P
12. B
13. L
14. P
15. B
16. B
17. B, P
18. L, P
19. L
20. L

Assignment Sheet 8

1. a. T-bone
    b. Pork chop, T-bone steak, loin roast
    c. Tender

2. a. Rib
    b. Rib steak, rib roast
    c. Tender

3. a. Wedge bone
    b. Sirloin steak
    c. Tender

4. a. Round
    b. Ham, arm steak or roast, round steak, shoulder, Boston shoulder
    c. Less tender in beef, tender in others

5. a. Blade bone
    b. Chuck roast or steak, blade pork steaks, Boston shoulder roast
    c. Less tender

Assignment Sheet 9

Chart should be completed according to information given on filmstrip or during demonstration

Assignment Sheet 10

1. Steak - broil, panfry, or panbroil
    Chops - braise, panfry, or panbroil

2. 4 lb. - allow 1/2 lb. per serving

3. 5 lb. - allow 1/4 lb. per serving

4. Pot roast or braise
    a. Brown outside
    b. Add liquid
    c. Simmer until tender

5. Roasts - rib roasts
   Pot roast - round, rump, chuck, arm
   Cook in liquid - stew meats

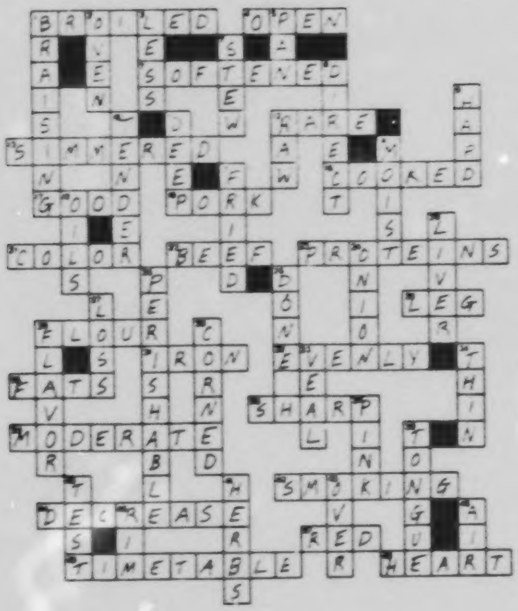
Assignment Sheet 11

1. Chuck steak; braise
2. T-bone; broil, pan broil, panfry
3. Stew meat; cook in liquid
4. Flank steak; braise
5. Plate; cook in liquid, braise
6. Rump roast; pot roast (braise)
7. Arm roast; pot roast (braise)
8. Club steak; broil, pan broil, panfry
9. Round steak; pot roast or braise
10. Sirloin steak; broil, pan broil, panfry
11. Ground beef; pan broil, broil
12. Short ribs; cook in liquid; braise
13. Rib roast; roast
14. Brisket; cook in liquid, braise
15. Rolled rib roast; roast

Assignment Sheet 12 - any one cookery method may be listed.

1. Boston roast - roast
2. Ham slice - broil, panbroil, or panfry
3. Loin roast - roast
4. Rib chop - braise, broil, panbroil, or panfry
5. Hock - braise, cook in liquid
6. Slab bacon - bake, broil, panbroil, or panfry
7. Picnic shoulder - roast (panfry if sliced)
8. Sausage - panfry, braise, or bake
9. Spareribs - bake, broil, panbroil, panfry, or cook in liquid

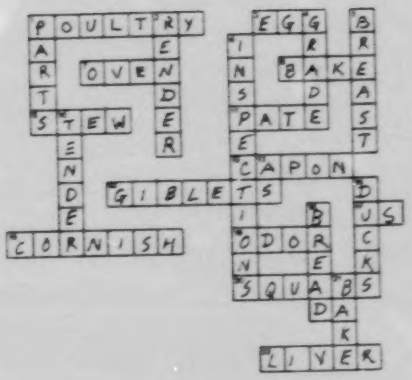
Assignment Sheet #13


BROILED
OPEN
SOFTENED
RARE
SIMMERED
COOKED
GOOD
PORK
COLOR
BEEF
PROTEINS
LEG
FLOUR
IRON
EVENLY
FATS
SHARP
MODERATE
SMOKING
DECREASE
RED
TIMETABLE
HEART

Assignment Sheet #14

O S M E A A G I N G D O N T Y O R O U N D S N I A R B
M O P Q R Z A R J E C U R E D P E P Q O T H W U N M A
A U L E L P R O T E I N B O B N D A L B M A L E T A C
N P W U M O P N W A F L O H F F L O I N T N C C E L O
O S U V N A D U N B R N E L E K U D T C D K Q U T T N
H T O N Y C I O N A E I V E T C O C E U G N O T E I B
N O P Q A M H N D Z S O B N X A H T R I B T U S N A V
L C I B E R C E D D H D N Y K L S P A R E R I B C N B
C K H A E M O R O I E B O R N O U A T I F C R O H E A
A F R V O V F M E N S E E F O R K N A L F O N T X D F
N O I E X A L U R T M H E A L I R P D A E C H U C K I
N L E V V A L O U A N E T I O E L M V F R H E A R T A
E F T H T H C Z E G Q D A W O S H O E O S H B N K U M
D U G A V J B A G O N L N T W O K B A R N I O L R I S
P O K O R G A N M E A T S L T S G R L E S Y E N D I K

Assignment Sheet #15


POULTRY
PARTS
RENDER
OVEN
STEW
TENDER
CORNISH
EGG
GRADE
BREAST
INSPECTION
BAKE
PATE
CAPON
GIBLETS
DUCKS
US
ODOR
BREAD
SQUABS
DA
BAKE
LIVER

Assignment Sheet #16

Answers will vary; evaluation should be based on class discussion.

Assignment Sheet #17

Explanations of how each term relates to fish should be appropriate to the satisfaction of the teacher.

A.	Fillet	H.	Tender
B.	Mollusk	I.	Scallop
C.	Poach	J.	Crustacean
D.	Trout	K.	Deepfry
E.	Chowder	L.	Herring
F.	Smoked	M.	Gills
G.	Oyster		

Assignment Sheet #18

1. Limas
2. Peanuts
3. Lentils
4. Black
5. Navy
6. Pinto
7. Kidney
8. Red
9. Black-eyed peas
10. Garbanzo
11. Soybeans
12. Dried peas
13. Chick peas
14. Cow

Assignment Sheet #19

Answers will vary but all questions should be answered to the satisfaction of the instructor.

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 5: Eggs, Meats*, and Legumes

JOB SHEET 1: COOK A CUT OF MEAT

Select a cut of meat to be roasted, broiled, panbroiled, fried, braised, or cooked in liquid. List the cut of meat selected and the recipe or cooking instructions to be used with the selected meat cut. Complete the time-work plan on the back of this sheet. Cook the cut of meat according to your time-work plan. Your instructor may assign your group a specific cooking method.

This Recipe Is For

____

Ingredients

______________________	______________________
______________________	______________________
______________________	______________________
______________________	______________________
______________________	______________________
______________________	______________________

Preparation Instructions: ______________________________

____

____

____

____

____

____

TIME-WORK PLAN **Name:**

Food to be prepared: **Kitchen:**

Food supplies needed:

Utensils Needed:

Order of work	**Time in Minutes**
1.	
2.	
3.	
4.	
5.	
6.	
7.	

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 5: Eggs, Meats*, and Legumes

SUGGESTED JOB SHEET EVALUATION

Appropriate cookery method for cut of meat	10
Appropriate recipe selection	10
Appropriate and complete recipe and time-work plan	20
Appropriate lab procedure was followed	20
End product:	
Appropriate flavor	10
Attractive appearance	10
Tender	10
Appropriate doneness	10
Total Points	**100**

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 5: Eggs, Meats*, and Legumes

JOB SHEET 2: PREPARE A RECIPE CONTAINING RED MEAT

Select a recipe that contains red meat. Use the following space to copy the recipe and preparation instructions. Complete the time-work plan on the back of this assignment sheet. Prepare meat recipe according to time-work plan.

Examples of recipes containing red meat: casserole, pastry, pizza, sandwich, salad, soup, sauce, fondue, dressing

This Recipe Is For ______________________

Ingredients

______________________	______________________
______________________	______________________
______________________	______________________
______________________	______________________
______________________	______________________
______________________	______________________

Preparation Instructions: ______________________

____

____

____

____

____

____

JOB SHEET 2: PREPARE A RECIPE CONTAINING RED MEAT (CON'T)

TIME-WORK PLAN **Name:**

Food to be prepared: **Kitchen:**

Food supplies needed:

[illegible]tensils Needed:

Order of work	**Time in Minutes**
1.	
2.	
3.	
4.	
5.	
6.	
7.	

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 5: Eggs, Meats*, and Legumes

SUGGESTED JOB SHEET EVALUATION

Appropriate cookery method for cut of meat	10
Appropriate recipe selection	10
Appropriate and complete recipe and time-work plan	20
Appropriate lab procedure was followed	20
End product:	
Appropriate flavor	10
Attractive appearance	10
Tender	10
Appropriate doneness	10
Total Points	**100**

Lesson 5: Eggs, Meats*, and Legumes

JOB SHEET 3: COMPARE QUALITY/PRICE OF RED MEAT

Equipment and supplies needed:

1. Skillets, 2 of the same type and size
2. Glass measuring cups, 2
3. Kitchen scales - scales located in the science department may be used.
4. Range
5. Spatula
6. Plates, 2
7. Ground beef, 4 ounces
8. Ground chuck, 4 ounces
   NOTE: If more than two qualities of ground beef are available, they may be used with the same instructions.
9. Strips of paper, 2 - will be used to label the patties according to the type of meat.

Procedure:

1. Make one patty from each of the two types of ground beef.
2. Weigh each patty using the kitchen scales. Each patty should weigh the same. If they do not, make adjustments.
3. Preheat two skillets to the same temperature or range setting.
4. Place one patty in each skillet.
5. Cook patties until done, turning with spatula as needed. Both patties should be cooked for the same length of time.
6. Remove meat patties from skillets.
7. Weigh each meat patty.
8. Record weights.
9. Place meat patties on plate.
10. Label each patty.
11. Pour fat and drippings from each skillet into measuring cups.
12. Record measurements.
13. Display meat patties with the corresponding measuring cup containing fat and drippings, and price per pound.
14. Evaluate qualities of meat. Consider the differences observed between the two types and price difference.

SUGGESTED JOB SHEET EVALUATION

Correct and accurate procedure followed	25
Appropriate evaluation was made by students	25
Total Points	50

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 5: Eggs, Meats*, and Legumes

JOB SHEET 4: COMPARE METHODS OF COOKING RED MEAT

Equipment and supplies needed:

1. Skillets, 2
2. Range
3. Microwave
4. Microwave baking pan, bacon rack, or paper plate
5. Wax paper
6. Broiler pan for range
7. Spatula
8. Plates, 4
9. Ground beef, 16 ounces
10. Fat, 2 tablespoons
11. Kitchen scales
12. Strips of paper, 4 - these will be used to label plates according to the cooking method used.

Procedure:

1. Make four 4-ounce patties from the ground beef.
2. Weigh each patty using the kitchen scales. Each patty should weigh the same. If they do not, make adjustments.
3. Fry one patty.
   a. Preheat skillet.
   b. Place fat in skillet and allow it to melt.
   c. Place one patty in skillet.
   d. Cook until done, turning with spatula as needed.
   e. Weigh cooked patty.
   f. Place on plate for display.
   g. Label plate Frying.
4. Panbroil one patty.
   a. Preheat skillet.
   b. Place one patty in skillet.
   c. Cook until done, turning with spatula as needed.
   d. Weigh cooked patty.
   e. Place on plate for display.
   f. Label plate Panbroiling.
5. Broil one patty.
   a. Preheat oven to broiling temperature.
   b. Place one patty on broiler pan.
   c. Cook until done, turning with spatula as needed.
   d. Weigh cooked patty.
   e. Place on plate for display.
   f. Label plate Broiling.

6. Microwave one patty.
    a. Place one patty in microwave baking pan or on a paper towel-lined paper plate. (A bacon rack works best.)
    b. Cover with wax paper.
    c. Cook 1-2 minutes.
    d. Turn patty over and cook 2 minutes more or until done.
    e. Weigh cooked patty.
    f. Place on plate for display.
    g. Label plate Microwaved.

7. Compare the meat patties for flavor, appearance, tenderness and size to draw conclusions about each of the cooking methods.

SUGGESTED JOB SHEET EVALUATION

Correct and accurate procedure followed	25
Appropriate evaluation was made by students	25
Total Points	50

JOB SHEET 5: COMPARE EFFECTS OF COOKING TEMPERATURES ON RED MEATS

Equipment and supplies needed:

1. Skillets, 2 of the same type and size
2. Glass measuring cups, 2
3. Kitchen scales
4. Range
5. Spatula
6. Plates, 2
7. Ground beef, 8 ounces
8. Strips of paper, 2 - the strips will be used to label the patties according to cooking temperature.

Procedure:

1. Make two equal patties from the ground beef.
2. Weigh each patty to be sure they are the same weight.
3. Preheat one skillet to a low or moderate temperature or range setting.
4. Preheat other skillet to a high temperature or range setting.
5. Place one patty in each skillet.
6. Cook until done, turning with spatula as needed. The patty cooked at high temperature should be done before the other patty.
7. Pour fat and drippings from each skillet into separate measuring cups.
8. Weigh each meat patty.
9. Place each meat patty on a plate.
10. Label each patty.
11. Display each meat patty with the corresponding measuring cup containing fat and drippings.
12. Compare the two meat patties for weight, size, tenderness, and moisture and make recommendations concerning use of cooking temperatures.

SUGGESTED JOB SHEET EVALUATION

Correct and accurate procedure followed	25
Appropriate evaluation was made by students	25
Total Points	50

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 5: Eggs, Meats*, and Legumes

JOB SHEET 6: COOKING POULTRY

Directions: The class will be divided into groups. Using a standardized cookbook, each group is to find a different method for preparing poultry. Keep in mind the class time schedule. Complete the steps below.

I. **Equipment**

II. **Procedure**

1. Method of preparation:

2. Class of bird used:

3. Recipe:

4. Groceries needed:

Specific Amount	Name of Item	In department	To be bought
1.			
2.			
3.			
4.			

5. Equipment needed:

6. Time and Work Schedule

A. Time | Job | Person to do

7. Is this method of preparation different than those you (or your family) usually use? If so, in what ways?

8. What was the most difficult part of the preparation? Why?

9. Why was this a good preparation method for the class of poultry you used?

10. Would you recommend this method to others? Why or why not?

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 5: Eggs, Meats*, and Legumes

SUGGESTED EVALUATION FOR JOB SHEET #6

Evaluation should be based on the following:

1. Job Sheet form filled out completely and appropriately to the satisfaction of the teacher.

   20 points

2. General kitchen lab techniques were efficiently carried out.

   10 points

3. Proper techniques in cooking poultry were followed.
   (Recipe was followed?)

   20 points

4. Finished product was attractively served, and well prepared.

   10 points

Total Possible 60 points

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 5: Eggs, Meats*, and Legumes

JOB SHEET 7: FISH COOKERY

I **Equipment**

II. **Procedure**

Directions: The class will be divided into groups. Using a standardized cookbook, each group is to select a recipe to prepare fish for one of the following purposes: appetizer, chowder or soup, main dish (alone), or main dish (casserole). (The teacher may wish to assign these to groups.) Complete the steps below. Keep in mind the class time schedule and foods available in your community when selecting recipe.

1. Way fish will be served: (appetizer, main dish, soup, etc.)

2. Method of cookery used: (baked, poached, fried, etc.)

3. Recipe (copy here):

4. Equipment needed for preparation

JOB SHEET 7: FISH COOKERY (CON'T)

5. Ingredients needed for preparation

Specific Amount	Name of Item	In department	To be bought

6. Time and Work Schedule

Time	Job	Person Performing

7. Approximate cost of major ingredients.

8. Prepare fish according to recipe, plans, and fish cookery guidelines.

9. Garnish and serve attractively to the class.

10. Taste each dish prepared.

11. Evaluation of Dishes (each student complete)

    A. Which dishes did you like the best?

    B. Which dishes were different from fish dishes you have had before?

C. Which dish was the most expensive? What mainly caused this expense?

D. Would you serve any of these dishes to your family? Why or why not?

Which ones would you serve?

E. List things you have learned from this preparation and tasting.

SUGGESTED JOB SHEET EVALUATION

Evaluation should be based on the following

I. Recipe selected was appropriate for the assignment.

5 points

II. Job Sheet form was completely and appropriately filled out.

15 points

III. Efficient general kitchen lab techniques were followed during preparation.

15 points.

IV. Appropriate fish cookery method and techniques were used.

15 points

V. Dish was attractively served and taste was appropriate.

10 points

Points possible **60 points**

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 5: Eggs, Meats*, and Legumes

JOB SHEET 8: LEGUME COOKERY METHODS

Directions: Divide class into four groups. Each group is to make the soup below with each using a different procedure.

OLD FASHIONED BEAN SOUP

I. **Ingredients:**

   A. 1 cup dry beans

   B. 3 cups water for boiling and crock pot or 2 cups for pressure saucepan

   C. 1/2 cup diced onion

   D. 1/2 cup diced celery with leaves

   E. 1 meaty ham hock or 1/2 lb. ham pieces

   F. 1 tsp salt

   G. 1/8 tsp pepper

   H. 1/8 tsp celery salt

   I. 1/2 tsp dry mustard

II. **Equipment**

   A. Procedure A

      1. Colander

      2. Saucepan

      3. Large spoon

      4. Food mill, sieve or electric blender (optional)

      5. Paring knife

      6. Serving dish

   B. Procedure B

      1. Colander

2. Electric slow-cooker (crock pot)
3. Large spoon
4. Food mill, sieve or electric blender (optional)
5. Paring knife
6. Serving dish

C. Procedure C

1. Colander
2. Pressure saucepan
3. Large spoon
4. Food mill, sieve, or electric blender (optional)
5. Paring knife
6. Serving dish

D. Procedure D

1. Large casserole dish with lid
2. Plastic wrap
3. Food mill, sieve, or electric blender (optional)
4. Large spoon
5. Paring knife

III. Procedures

A. Procedure A - Standard

1. Wash beans.
2. Place in saucepan with all remaining ingredients; cover.
3. Bring to boil, and boil 2 minutes.
4. Turn off heat and soak 1 hour.
5. Bring to boil, and cook slowly for 2 hours or until soft.
6. Remove meat and bone.

7. Optional step: push beans through food mill or sieve or blend in electric blender. If preferred, beans could be left whole.

8. Cut ham in bite size pieces, return to soup.

9. Heat soup.

10. Serve hot and evaluate.

NOTE: Instead of steps 2 and 3, beans could be soaked overnight after washing.

B. Procedure B - Slow Cooker

1. Wash beans.

2. Soak overnight.

3. Put all ingredients in slow-cooker.

4. Cover and cook on low for 10-12 hours (High 5-6).

5. Remove meat and bone.

6. Optional step: push beans through food mill or sieve or blend in electric blender. If preferred, beans could be left whole.

7. Cut ham in bite size pieces; return to soup.

8. Heat soup on high until heated through.

9. Serve hot and evaluate.

C. Procedure C - Pressure Saucepan

1. Wash beans.

2. Place in saucepan with remaining ingredients.

3. Bring to boil and boil 2 minutes.

4. Turn off heat and soak 1 hour.

5. Bring beans and seasonings to boil and let steam escape for 1 minute.

6. Put on pressure unit, and let pressure slowly rise to 15 lbs.

7. Cook at 15 lb. for 10 minutes.

8. Turn off heat and let pressure slowly return to normal.

9. Remove meat and bone.

10. Optional step: push beans through food mill, sieve, or blender. If preferred, beans could be left whole.

11. Cut ham in bite size pieces; return to soup.

12. Heat soup until hot (if necessary).

13. Serve hot and evaluate.

(NOTE: Instead of steps 2 and 3 beans could be soaked overnight after washing.)

D. Procedure D - Microwave oven

1. Wash beans.
2. Combine with seasoning and other ingredients.
3. Cover with plastic wrap and casserole lid for tight seal.
4. Microwave at high 8-10 minutes or until boiling.
5. Reduce power to 50% (medium) and microwave 1½ hours or until tender, stirring 4 times.
6. Remove meat and bone.
7. Optional step: push beans through food mill, sieve or blender. If preferred, beans could be left whole.
8. Cut ham in bite size pieces; return to soup.
9. Heat soup on High 1-2 minutes until heated through.
10. Serve hot and evaluate.

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 5: Eggs, Meats*, and Legumes

SUGGESTED EVALUATION FOR JOB SHEET 8

For each of the procedures below list 1 or 2 advantages and 1 or 2 disadvantages. Keep in mind length of preparation time, taste, equipment needed, etc.

Procedure A: Standard

Advantages:

1. ____________________

2. ____________________

Disadvantages:

1. ____________________

2. ____________________

Procedure B: Slow Cooker

Advantages:

1. ____________________

2. ____________________

Disadvantages:

1. ____________________

2. ____________________

Procedure C: Pressure Saucepan

Advantages:

1. ____________________

2. ____________________

Disadvantages:

1. ______________________________

2. ______________________________

Procedure D: Microwave

Advantages:

1. ______________________________

2. ______________________________

Disadvantages:

1. ______________________________

2. ______________________________

General Conclusions

1. Which method did you prefer?

2. Why did you prefer this method?

SUGGESTED EVALUATION FOR JOB SHEET 8 (CONT'D)

Evaluation should be based on the following:

1. General kitchen lab habits were efficient.

15 points

2. Proper methods of legume cookery were followed.

15 points

3. Legume dish was of good quality - legumes tender; good flavor

15 points

4. Analysis sheet was completed with appropriate responses

15 points

POSSIBLE	60 points

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 5: Eggs, Meats*, and Legumes

TEST

Red Meat 1. Match the terms on the right to the correct definitions by placing the appropriate numbers in the blanks provided.

____ a. Mechanical or enzymatic method used to make meat more tender

____ b. Meat of sheep less than one year old

____ c. Substance in food that furnishes body fuel, provides materials for the building and/or maintenance of body tissue, and acts to regulate body processes

____ d. Specific portion of meat

____ e. 2-1/2 to 3 ounces of cooked, edible lean meat

____ f. Least exercised portion of the animal usually located along backbone and upper ribs

____ g. Meat of immature cattle, usually six months of age or less

____ h. Measure of quality of meat

____ i. Meat of mature cattle, usually six months of age or more

____ j. Edible part of animal other than skeletal muscles; various organs and parts

____ k. Meat of sheep over one year old

____ l. Most exercised portion of the animal, depending upon animal's age and condition

____ m. Meat of swine

____ n. Intermingling of fat throughout lean

1. Cut
2. Tender cut
3. Nutrient
4. Beef
5. Grade of meat
6. Lamb
7. Serving of meat
8. Less tender cut
9. Marbling
10. Pork
11. Tenderize
12. Veal
13. Mutton
14. Variety meat

2. Name five types of red meats.

a.

b.

c.

d.

e.

3. Name the four forms in which red meat may be purchased.

a.

b.

c.

d.

4. Match the four components of meat on the right to the correct descriptions by placing the appropriate numbers in the blanks provided.

____ a. Muscle fibers which carry vitamins, minerals, and protein

____ b. Creamy white, threadlike strands that bind the muscle fibers in little bundles and bind the muscle to the bone

____ c. Hard calcium tissue found in vertebrates which is used to identify various meat cuts

____ d. Creamy white tissue that surrounds the carcass of the animals just beneath the skin and is found throughout the lean

1. Fat
2. Lean
3. Bone
4. Connective tissue

5. Select from the list below the main nutrients contained in meats by placing an "X" in the appropriate blanks.

____ a. Protein
____ b. Vitamin D
____ c. Thiamine
____ d. Fats
____ e. Iron
____ f. Phosphorus
____ g. Copper
____ h. Calcium

____ i. Niacin

____ j. Riboflavin

6. Name five factors to consider in the purchase of meats.

a.

b.

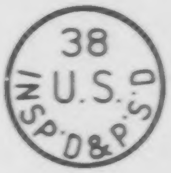
c.

d.

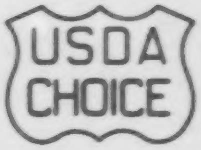
e.

7. Place an "X" beside the correct meat inspection stamp and the correct explanation of its purpose.

a. ________



b. ________



____ c. Indicates the quality of the meat

____ d. Indicates the meat is wholesome

8. Match the grades of meat on the right to the correct descriptions by placing the appropriate numbers in the blanks provided.

____ a. Fine-grained, firm lean with white connective tissue; less marbling of fat

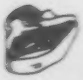
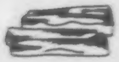
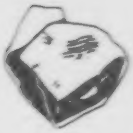
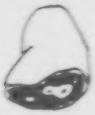
____ b. Fine-grained, firm lean with white connective tissue; much marbling of fat in lean portion

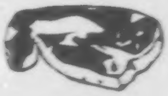
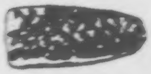
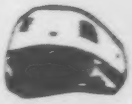
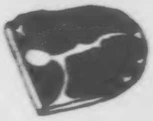
____ c. Darker red color; coarser lean with darker connective tissue; less fat in lean and around it

____ d. Coarser-grained lean with creamy white connective tissue; less fat in lean and around it

1. Good
2. Choice
3. Prime
4. Standard

9. Label the retail meat cuts below and place the number of the wholesale cut from which it comes in the appropriate blank.

Pork	Name of Retail Cut	Number of Wholesale Cut	Wholesale Cut Choices
a. 			1. Picnic
			2. Ham
b. 			3. Loin
			4. Side
c. 			
d. 			

Beef	Name of Retail Cut	Number of Wholesale Cut	Wholesale Cut Choices
e. 			5. Sirloin
			6. Round
f. 			7. Flank
			8. Rib
g. 			
h. 			

10. Match the common cooking methods on the right to the correct descriptions by placing the appropriate numbers in the blanks provided.

___ a. Covering food with water and cooking at a simmering temperature in a covered pan

___ b. Cooking food uncovered in a fry pan and pouring fat off as it accumulates

___ c. Cooking food uncovered by dry heat, usually in an oven

___ d. Browning food in a small amount of fat and then cooking slowly in a covered utensil

___ e. Cooking food in fat in an uncovered skillet

___ f. Cooking food by direct heat over coals or under an open flame or electric unit

1. Roasting
2. Braising
3. Panbroiling
4. Cooking in liquid
5. Frying
6. Broiling

11. List three rules to remember in cooking meats.

a.

b.

c.

12. Indicate the cooking method for each of these red meat cuts by filling in the blanks with "M" for moist heat cooking method, "D" for dry meat cooking method, or "DM" for cuts of meat that could be prepared by either method.

___ a. beef chuck roast
___ b. beef rib steak
___ c. sirloin steak
___ d. beef stew meat
___ e. beef short ribs
___ f. pork loin rib chop
___ g. Boston shoulder roast
___ h. ham (butt half)
___ i. lamb loin chop
___ j. American leg roast of lamb

13. List five uses of meats in recipes.

a.

b.

c.

d.

e.

14. List three factors to consider when storing meats.

a.

b.

c.

Poultry 15. Match the terms on the right to the correct definition on the left by placing the number in the correct space.

____ a. Any bird that is raised for meat

____ b. The edible organs of poultry

____ c. Wing tips of bird are turned back onto the shoulder and the drumsticks tied to the tail

____ d. Braising poultry

1. Saute
2. Fricassee
3. Trussed
4. Giblets
5. Poultry
6. Capon
7. Variety meats

16. Describe the contributions of poultry to the diet.

a.

b.

c.

d.

17. List the three forms in which to buy poultry.

a.

b.

c.

18. Describe (or draw a sketch of) the USDA stamp and the inspection stamp put on poultry and briefly tell what each means.

19. Match the classes of poultry on the right with the correct description on the left by placing the number in the correct space.

____ a. Young pigeons

____ b. Turkeys older than 15 months

____ c. Turkeys under 15 months old

____ d. Youngest and tenderest chicken

____ e. Most mature chicken

____ f. 4-8 pound desexed male chicken

____ g. Older chicken than broiler; younger than stewer

____ h. Young goose

1. Broiler-fryer
2. Roaster
3. Stewer
4. Capon
5. Pate
6. Yearling
7. Mature
8. Duckling
9. Squab
10. Gosling

20. State the general rule for determining how much poultry to buy.

21. List four ways to serve poultry

a.

b.

c.

d.

22. List five ways to serve leftover poultry.

a.

b.

c.

d.

e

23. Place a (+) beside statements below which are techniques to follow in the preparation of poultry.

____ a. Use low to moderate temperature.

____ b. Use dry heat methods to cook young poultry.

____ c. Use moist heat methods such as broiling to cook older poultry.

____ d. A roasted bird should be carved immediately after taking from the oven.

____ e. Cover the roasting pan tightly with a lid or aluminum foil.

____ f. Rinse poultry with cold water before preparing.

____ g. Tender chickens work well for frying but turkeys usually do not.

____ h. To fry chicken, begin at a higher temperature and finish cooking at a lower temperature.

____ i. To braise chicken, a small amount of liquid is added after browning.

____ j. When stewing poultry, the kettle should be tightly covered.

____ k. Poultry is not suitable for pressure cooking.

____ l. Poultry must always be cooked to the well-done stage.

____ m. Meat thermometers usually do not work satisfactorily for poultry.

24. Place a (+) beside statements below which are appropriate care and storage guidelines for poultry.

____ a. Store fresh poultry in the refrigerator.

____ b. Use within 3-4 days.

____ c. Never wash poultry before storing.

____ d. Put a new wrapping on poultry before storing.

____ e. Frozen whole poultry will keep well for 1 - 1½ years.

____ f. Frozen stuffed poultry must be cooked while still frozen.

____ g. Poultry should be thawed at room temperature.

____ h. It is usually best to prepare stuffing in advance to let flavor develop.

____ i. Leftover poultry should be used within 2 days.

Fish 25. Match the terms on the right with correct definition on the left by placing the number in the appropriate blank.

____ a. Cream soup with chunks of seafood

____ b. Sides of fish, cut lengthwise, boneless

____ c. Removed from shell

____ d. Salt water solution

____ e. Pieces of fish cut from fillets

1. Brine
2. Chowder
3. Fillet
4. Drawn
5. Fish Steaks
6. Shucked
7. Sticks

26. Describe the contributions of fish to the diet.

a.

b.

c.

d.

e.

27. List and briefly describe the two main classes of fish.

a.

b.

28. List the four forms i[illegible]hich fish may be purchased.

a.

b.

c.

d.

29. Place a (+) in front of those statements below which are techniques to follow in buying fish.

____ a. Fresh fish should have gills which are a dull red.

____ b. The flesh of fresh fish should have a mild odor.

____ c. Grading of fish is voluntary.

____ d. Cans with slight bulges may be lower in price and may be a good buy.

____ e. The eyes of fresh fish should be bulging.

____ f. Frozen fish should be tightly wrapped.

30. Place a (+) in front of those statements below which are guidelines for how much fish to buy.

____ a. Only ½ of a whole fresh fish is edible.

____ b. There is no waste in fillets.

____ c. Amount to buy varies with the kind of fish, way served, number of people and serving size.

31. List four ways to serve fish.

a.

b.

c.

d.

32. List five ways to use leftover fish.

a.

b.

c.

d.

e.

33. Place a (+) in front of those statements below which are techniques to follow in preparing fish.

____ a. Use moderate to low cooking temperature.

____ b. Before cooking, fish should be tenderized with a chemical tenderizer.

____ c. Fish may be served rare, medium rare, or well done.

____ d. Fish has finished cooking when the flesh looks milky white.

34. Fill in the missing words below in the description of fish cookery methods.

a. When baking fish, place in a ____________________.

b. Bake at ____________________ until done.

c. When broiling, place on ____________________. Brush with melted fat or a sauce to prevent drying.

d. Place pan ____________________ from the heat source.

e. Dressed fish or fish steaks will probably need to be ____________________ halfway through cooking.

f. Cook about ____________________ from hot coals.

g. Heat fat to about ____________________.

h. For panfrying, the fat should be about ____________________ deep in a skillet. (For deep-fat frying, use enough oil to completely cover the pieces.)

i. When frying cook until ____________________.

j. Thick pieces will need to be ____________________.

k. When poaching, use enough ____________________ to just cover the fish.

l. Wrap fish in ____________________. Shellfish should remain in shell.

35. Place a (+) beside statements below which are good care and storage techniques for fish.

____ a. Fresh fish should be wrapped loosely and refrigerated at 35-40°.

____ b. Use fresh fish within 1-2 days.

____ c. Cooked seafood should be covered, refrigerated and used within 1-2 days.

____ d. Live shellfish should be cooked immediately.

____ e. Frozen fish will keep successfully up to 3 months at a frozen temperature of 0°F.

____ f. Salted fish does not need to be refrigerated.

____ g. Pickled fish does not need to be refrigerated.

____ h. It is best to thaw fish at room temperature.

Legumes 36. Match the terms on the right with correct definitions on the left by placing the number in the appropriate blank.

____ a. Bean curd

____ b. Soybean products that look and taste like bacon, sausage, ham and chicken

____ c. Products which can be added to ground beef or processed meat to make it go further.

1. Meat analogues
2. Meat extenders
3. Tofu

37. Describe the contribution of legumes to the diet.

a.

b.

c.

d.

38. Place a (+) in front of those statements below which are general guidelines for buying legumes.

____ a. Legumes are a relatively expensive item on the food budget.

____ b. Grading is not required for legumes.

____ c. Legumes should be uniform in size.

____ d. Color is an indication of quality.

____ e. Strict laws prohibit any foreign matter in packages of legumes.

____ f. Legumes may be purchased in canned, ready-to-serve forms.

39. Match the types of legumes on the right with correct descriptions on the left by placing the number in appropriate blanks.

____ a. Tan-colored legume in a shell which grows underground

____ b. Disc-shaped legumes, the size of peas

____ c. Most nutritious of all beans with a distinct nut-like flavor

____ d. Legume with a black color

____ e. May be yellow or green, whole or split

____ f. Small white beans with black spots

____ g. Nut-flavored, round beans

____ h. Oval with pink dots

____ i. Small white oval beans with bland flavor

____ j. Broad, flat beans

1. Black-eyed peas
2. Garbanzo beans
3. Kidney beans
4. Lima beans
5. Navy beans
6. Pinto beans
7. Red and pink beans
8. Soybeans
9. Dried peas
10. Lentils
11. Peanuts
12. Black beans

40. List five ways to serve legumes.

a.

b.

c.

d.

e.

41. Place a (+) in front of those statements below which are correct guidelines and steps for preparation of legumes.

____ a. Legumes should be washed before cooking.

____ b. Legumes should be soaked in about 1-2 cups of water.

____ c. Legumes usually require cooking for 1/2-1 hour.

____ d. Legumes should be cooked in the same water in which they are soaked.

____ e. Legumes will swell during cooking.

____ f. Lentils and split peas may be pressure cooked, which saves time in preparation.

____ g. Legumes may be cooked in a slow-cooker.

____ h. Legumes may be cooked successfully in a microwave oven.

42. Place a (+) in front of those statements below which are care and storage guidelines for legumes.

____ a. Dry legumes should be stored in packages or covered container in the refrigerator.

____ b. Legumes keep a relatively long time.

____ c. Cooked legumes should be refrigerated.

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 5: Eggs, Meats*, and Legumes

TEST ANSWERS

Note: It may be helpful to use your blank test to make a test key.

1. a. 11 e. 7 i. 4 m. 10
b. 6 f. 2 j. 15 n. 9
c. 3 g. 12 k. 13
d. 1 h. 5 l. 8

2. a. Beef d. Lamb
b. Pork e. Mutton
c. Veal

3. a. Fresh c. Frozen
b. Canned d. Cured

4. a. 2 c. 3
b. 4 d. 1

5. a, c, d, e, f, g, i, j

6. Any five of the following:

a. Nutritive value
b. Type of meat
c. Quality of meat
d. Use of meat
e. Number of servings from the cut
f. Cost per serving
g. Total money budgeted for meat or food
h. Proper packaging
i. Storage facilities available
j. Sale items

7. a, d

8. a. 2 c. 4
b. 3 d. 1

9. a. Chop, 3
b. Bacon, 4
c. Picnic, 1
d. Hock, 2

e. Sirloin steak, 5
f. Flank steak, 7
g. Rib roast, 8
h. Round steak, 6

10. a. 4 d. 2
b. 3 e. 5
c. 1 f. 6

11. Any three of the following:

a. Tenderize less tender cuts
b. Use correct method of meat cookery
c. Use low cooking temperatures
d. Cook meat only until it reaches the desired degree of doneness

12. a. M d. DM g. DM j. D
b. D e. M h. D
c. DM f. D i. D

13. Any five of the following:

a. Casserole
b. Pastry
c. Pizza
d. Sandwich
e. Salad
f. Soup
g. Sauce
h. Fondue
i. Dressing

14. Any three of the following:

a. Refrigerate or freeze fresh meats as soon as possible after purchase
b. Wrap meats in moisture-resistant material before freezing for longer than a week.
c. Follow storage instructions given on labels of processed and canned products.
d. Store canned products in a cool, dry place.
e. Refrigerate or freeze leftovers promptly.

15. a. 5
b. 4
c. 3
d. 2

16. Complete protein; Minerals of iron and phosphorus; Vitamin B group; Low calories, generally

17. a. Fresh

b. Frozen
c. Canned

18. Inspection stamp
Circle - means poultry is safe to eat (must be on any poultry sold across state lines)
Grade stamp
Shield - States the quality of poultry as Grade A, B, or C.

19. a. 9

b. 7

c. 6

d. 1

e. 3

f. 4

g. 2

h. 10

20. For whole bird or parts that contain bone, 1/2 lb. or more per serving.

21. Should list any 4:

a. Main dish
b. Ingredient in salad
c. Ingredient in soups, stews, and gumbos
d. Ingredient in casseroles
e. Appetizers

22. Should list any 5:

a. Pot pies
b. Soup, stew, gumbo
c. Casseroles
d. Salads
e. Quiche
f. Omelets

23. a. +
b. +
c.
d.
e.
f. +
g.

h. +
i. +
j. +
k.
l. +
m.

24. a. +
b.
c.
d. +
e.
f. +
g.
h.
i. +

25. a. 2
b. 3
c. 6
d. 1
e. 7

26. a. Complete protein
b. Low fat
c. Low calories
d. Minerals = phosphorus, calcium
e. Vitamins = B, A, and D

27. a. Finfish - have fins and a backbone; can be freshwater or saltwater
b. Shellfish - without fins and backbone; may be mollusks with 2 enclosing shells or crustaceans with a hard upper shell and soft under shell.

28. a. Fresh
b. Frozen
c. Cured
d. Canned

29. a.
b. +
c. +
d.
e. +
f. +

30. a.
b. +
c. +

31. a. Appetizer
b. Chowder, stews, and soups

c. Main dish (alone)
d. Main dish casseroles

32. a. Salads
b. Sandwiches
c. Souffles
d. Creamed dishes
e. Casseroles
f. Sauces

33. a. +
b.
c.
d. +

34. a. Greased baking dish
b. 350°F
c. Greased broiler pan
d. 2 to 4 inches
e. Turned over
f. 4 inches
g. 375°F
h. 1/8 inch
i. Golden brown
j. Turned once.
k. Liquid (water, milk, or broth)
l. Cheesecloth

35. a.
b. +
c.
d. +
e. +
f. +
g.
h.

36. a. 3
b. 1
c. 2

37. a. Incomplete protein
b. Iron
c. B vitamins
d. Carbohydrates (starch)

38. a.
b. +
c. +
d. +
e.
f. +

39. a. 11
b. 10
c. 8
d. 12
e. 9
f. 1
g. 2
h. 6
i. 5
j. 4

40. Any 5 can be listed.

a. Alone as vegetable dish
b. Chili and soups
c. Salads
d. Casseroles
e. Desserts
f. Snacks
g. Meat analogues

41. a. +
b.
c.
d. +
e. +
f.
g. +
h. +

42. a.
b. +
c. +

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 6: *Others - Pastries, Cakes, Frostings, and Candies

LESSON OBJECTIVE

After completion of this lesson, the student should be able to select, care for, prepare, and store properly pastries, cakes, frostings, and candies. This knowledge will be evidenced through completion of assignment and job sheets and by scoring 85 percent on the lesson test.

SPECIFIC OBJECTIVES

Pastries

1. Match terms associated with pastries to the correct definition.
2. Identify the five types of pastry.
3. Describe the food value of pastries.
4. List and compare products which may be purchased for pastry crust, fillings, and topping.
5. List four ways to serve pastries.
6. List in order the basic steps for preparing basic pastry.
7. Identify general techniques to follow when making pastry.
8. List in order the steps for making puff pastries.
9. Match poor characteristics of pastry to their causes.
10. List and describe desirable characteristics of pastry.
11. Identify care and storage procedures for pastries.
12. Compare appearance, texture, taste, time, cost, and satisfaction in using pastry from a recipe, a mix, or frozen, and in use of the various types of pie fillings.

*"Others" is the basic group of foods which are to be eaten after the other groups are consumed in adequate amounts. These foods generally provide lots of "empty" calories and little or no other nutrients, and should therefore be kept to a minimum in most individuals' diets.

13. Demonstrate the ability to

    a. Prepare basic 2-crust pastry

    b. Prepare basic 1-crust pastry with meringue topping

    c. Prepare puff pastry

    d. Evaluate pastries

Cakes and Frostings

14. Describe the three classes of cakes and give an example of each.

15. List the forms (shapes) of cakes.

16. Describe the contribution of cakes to the diet.

17. Compare and evaluate ways to buy cakes.

18. Identify general guidelines for preparation of cakes.

19. Become familiar with the differences in mixing methods for cakes.

20. Describe characteristics of quality for the three types of cakes.

21. Identify care and storage techniques for cakes.

22. Describe the types of cake frostings.

23. Match problems with frostings to causes and solutions.

24. List the steps in frosting a cake.

25. Demonstrate the ability to:

    a. Make a cake with fat

    b. Make a cake without fat

    c. Make a chiffon-type cake

    d. Make a cooked frosting

    e. Make an uncooked frosting

    f. Evaluate cakes and frosting

Candies

26. Match terms associated with candies.

27. Describe the contribution of candies to the diet.

28. List the two main kinds of candy and examples of each.

29. Identify major ingredients of candy.

30. Identify guidelines for preparation of candy.

31. Identify care and storage guidelines for candies.

32. Demonstrate the ability to make and evaluate a crystalline candy (fudge) and a noncrystalline candy (peanut brittle).

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 6: *Others - Pastries, Cakes, Frostings, and Candies

SUGGESTED ACTIVITIES

I. Suggested Activities for Instructor

  A. Order films, filmstrips, pamphlets, etc. to supplement lesson.

  B. Provide students with objective sheet.

  C. Provide students with information and assignment sheets.

  D. Discuss lesson and specific objectives.

  E. Discuss information and assignment sheets.

  F. Adapt material for special needs students..

  G. Determine time allotment for lesson and decide whether assignments will be at-home assignments or in-class, which job sheets to use and whether to use one or all of the review sheets depending on class and laboratory time.

  H. Give test.

  (NOTE: Not all objectives are evaluated on test. Some objectives are evaluated only by assignment and job sheets. If you feel more thorough evaluation is needed, you will need to add additional questions to the test.).

  I. Reteach, if necessary.

INSTRUCTIONAL MATERIALS

I. Included in this lesson

  A. Objective sheet

  B. Information sheets

  C. Handouts

    1. HO 1: How to Make Perfect Pastry
    2. HO 2: Cakes - Nutritional Composition
    3. HO 3: The Cake Pans
    4. HO 4: Making an Angel Food Cake
    5. HO 5: Temperatures and Tests for Syrup and Candies

D. Transparency masters

    1. TM 1: Kinds of Pastry
    2 TM 2: Basic Pastry Ingredients
    3. TM 3: Cakes: Function of Ingredients
    4. TM 4: Good Cake Baking Practices

E. Assignment sheets

    1. AS 1: Pastry Puzzle
    2. AS 2: Poor Pastry
    3. AS 3: Pastry Maze
    4. AS 4: Comparing Cakes
    5. AS 5: Comparing Frostings
    6. AS 6: Candy Scramble
    7. AS 7: Candy Capers

F. Answers to assignment sheets

G. Job Sheets

    1. JS 1: Pie Crust Comparison
    2. JS 2: Pie Filling Comparison
    3. JS 3: Prepare a Two-crust Apple Pie
    4. JS 4: Prepare a One-Crust Pie with Meringue
    5. JS 5: Prepare Cream Puffs Pastry
    6. JS 6: Cake with Fat
        Part A: Yellow Cake
        Part B: Uncooked Frosting
    7. JS 7: Cake without Fat
        Part A: Angel Food Cake
        Part B: Cooked Frosting
    8. JS 8: Cake with Oil
    9. JS 9: Crystalline Candy (Fudge)
    10. JS 10: Noncrystalline Candy (Peanut Brittle)

H. Test

I. Test key

II. References

A. Betty Crocker Picture Cookbook. New York: Golden Press, 1981.

B. Largen, V., Guide to Good Food. South Holland, IL: Goodheart-Willcox Co., Inc., 1979.

C. Ohl, S., et al. Guide to Modern Meals. St. Louis, MO: McGraw-Hill Book Co., 1981.

III. Visuals

Betty Crocker Teaching Aid Kit (filmstrip and booklets), Free loan or purchase: The Betty Crocker Film Library; 9200 Film Center; Box 1113, Minneapolis, Minnesota 55440: "Easy As Pie"; "Flair With Frostings and Desserts"; "Celebrate With Cake"; "Cookie Craf

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 6: *Others - Pastries, Cakes, Frostings, and Candies

NOTES TO THE INSTRUCTOR

Pastries

1. The instructor may want to test immediately after teaching each portion of this lesson.

2. Give a teacher demonstration on one-crust and two-crust pies.

3. Review the techniques in beating up eggs and making a meringue (HO 5) and demonstrate making a meringue, especially if this was not covered in Home Economics I - Basic Core.

4. If apples are unavailable, expensive, or too time consuming, substitute another fruit for Job Sheet #3 using an appropriate recipe of your choice.

5. Have students bake pastry crust scraps on different type pans - shiny, glass, anodized, etc. and compare the results.

6. Decide how many groups will be used in performing pastry job sheets and divide the class accordingly.

7. Decide if more than one laboratory period will be necessary to complete job sheets and if so how time and duties will be divided between periods.

8. Shop for groceries for job sheet laboratory work; take students with you if possible.

NOTE: Job sheets #1 and 2 incorporate convenience foods in the pastry line for comparison.

Cakes and Frosting

*9. Review baking techniques by reviewing the unit on making cookies in the Junior High Guide and by baking a more difficult type of cookie.

10. When discussing the different forms and shapes of cakes, have students give examples of uses for each form.

11. Have a demonstration given on decoration of cakes - both simple and elaborate.

12. Use TM 3, "Cakes - Function of Ingredients" to review function of ingredients specifically used for cakes.

13. The teacher should plan to demonstrate or have a student demonstrate mixing a box mix cake and a "scratch" cake (this will show students how to mix their own on a later Job Sheet) for Assignment Sheet #1. Because of time it would be best to give the demonstration on one day and have students evaluate the following day. Part B of this assignment could be completed orally as a class.

14. Suggest students make a full-size angel, chiffon or sponge cake at home as an extra project since those done in class were not full-size.

15. Plan to spend 2 lab periods on Job Sheet #1 and 2 if cakes are frosted.

16. Plan to use egg yolks left over from Job Sheet #2 in cookies in the next unit or plan another use (such as in an egg yolk sponge cake, etc.).

17. For an additional experience in making cakes without fat (sponge), have students make a jelly roll.

18. Find a cake recipe using the conventional method of mixing; have students make and compare the product to the quick method (recipe on Job Sheet #1).

19. Students may wish to discuss and share recipes (and possible samples from home) for "homemade" cakes, besides the basic white, yellow, and chocolate, which may be more nutritious, stay moister, and give more successful results (such as applecakes, zucchina cake, etc.)

20. Discuss ways to make cake mixes more interesting and appealing. Students may wish to share recipes (and possible samples from home) for cakes made from cake mixes to which they've added additional ingredients such as pie filling, streusel mixtures, additional spices and puddings, etc. to give variety (use of convenience foods).

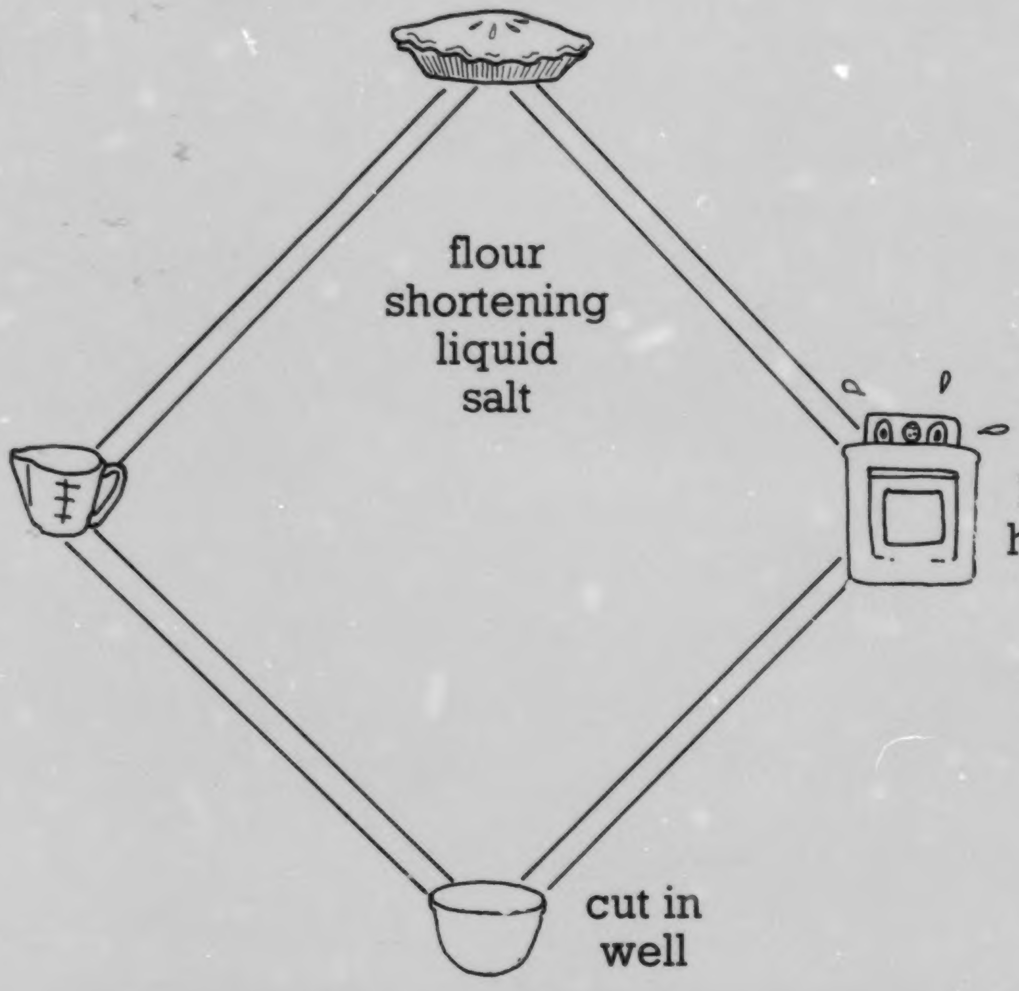
Candies

21. Find recipes for additional crystalline and noncrystalline candies for more student experience (divinity, caramrels, etc.).

Bulletin Board Idea

All-American Baseball and Apple Pie

red, white, and
blue background


flour
shortening
liquid
salt
correct
proportions
bake in
hot oven
cut in
well

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 6: *Others - Pastries, Cakes, Frostings, and Candies

INFORMATION SHEETS

Pastries

I. Terms and definitions for Pastries (AS 1)

  A. **Pastry** - a thin, flaky, crispy, baked dough with high proportion of fat and flour

  B. **Tarts** - one- or two-crust pies which are individual servings

  C. **Turnovers** - a small filled pastry made by folding half of the crust over the other half; often fried

  D. **Flute** - to make a decorative rim around the edge of pastry

  E. **Cream puff** - a fancy puffed French pastry made with flour, butter, and eggs, round in shape with a cream or pudding filling

  F. **Eclair** - a fancy puffed French pastry made with flour, butter, and eggs, rectangular in shape with a cream or pudding filling and topped with a glaze

  G. **Quiche** - a pastry shell filled with a rich egg and cream custard and various other ingredients, such as ham, seafood, or vegetables

  H. **Cobbler** - a deep dish fruit pie with thick top crust

II. Types of pastry (TM 1)

  A. Pies

    1. One-crust

      a. Dessert
      b. Quiche

    2. Two-crust

      a. Dessert
      b. Main course

  B. Tarts

  C. Turnovers

  D. Cobblers

E. Puff pastries

1. Cream puffs
2. Eclairs

III. Contributions of pastry to the diet

A. High calories (due to large proportion of fat in the dough and large amount of sugar in fillings)

B. High fat - shortening in crust

C. High carbohydrates - flour in crusts and sugar in filling

D. Other nutrients in varying amounts depending on the kind of filling

NOTE: For most nutritional value and fewest calories it would be best to eat the plain filling without the crust. For example, eat an apple instead of a piece of apple pie.

IV. Selecting and purchasing pastries and pastry ingredients (JS 1) (TM 2)

A. Pastry crust

1. Pastry mix - requires addition of water

2. Pastry stick - already mixed but requires rolling out

3. Frozen pastry shell - no preparation necessary other than baking

4. Ingredients to make pastry crust - requires the most time and energy. (Review functions of ingredients in Lesson 3.)

    a. All-purpose flour is best for pastry crust (crushed graham crackers, cereals, or cookies might be used for variations).

    b. Solid shortening, lard, vegetable shortening or butter make the flakiest crust.

    NOTE: Vegetable oils may be used but the crust will be more crumbly.

    c. The liquid used is usually water, although milk, cream or fruit juice may be used occasionally.

    d. Salt is the only flavoring used for most pastry. (Nuts or grated cheese might be added for variety.)

    e. Eggs, medium-sized, are required for cream puff and eclair pastry.

B. Fillings (JS 2)

1. Fresh fruits for fillings do not have to be as perfect as if they were to be served whole. Such fruits may be more economical when in season than canned or prepared fillings.

2. Canned fruits (or vegetables for main dish pies) work very satisfactorily and usually require less preparation and baking time than fresh fruits.

3. Prepared fillings are convenient and available in a wide variety of flavors, but may be relatively expensive.

4. Filling mixes are available for cream filling. Some require cooking, and are best if a meringue topping is used. Some are instant and do not require cooking.

C. Toppings

1. Meringue

2. Prepared whipped topping

3. Whipped cream

4. Whipped topping mix

D. Already prepared pie

1. Frozen

2. Bakery

V. Ways to serve pastries

A. Main dishes

B. Appetizers

C. Desserts

D. Snacks

VI. Steps of preparing basic pastry (AS 3) (JS 3)

A. Sift the salt with the flour.

B. Cut the fat into the salt/flour mixture, using a pastry blender or two knives, until it is evenly distributed.

C. Add water, a tablespoon at a time, stirring with a fork until the mixture clings together.

D. Shape the dough into a firm ball.

E. Roll out the dough.

F. Place gently in pan.

G. Flute edges and prick, fill and bake according to the specific type of pie.

VII. General techniques for making pastry (HO 1)

A. Use only enough water to make ingredients stick together; too much will toughen; too little will make crumbly.

B. Use cold water for easier handling.

C. Handle dough quickly and lightly.

D. Use as little flour as possible when rolling out the pastry.

E. Roll from the center of the dough outward, lifting the rolling pin at the end of each stroke.

F. Roll dough 1 1/2-3 inches larger than the pan, 1/8 inch thick.

G. Do not stretch dough; this will prevent shrinkage.

H. One-crust pastry shells which are to be baked before filling should be pricked all over bottom and sides prior to baking to prevent air bubbles.

I. Two-crust pies should have a slit cut in top to allow steam to escape.

J. Pastries (with exception of some pies such as custard) are baked in a hot oven, 400-425 degrees F.

K. Glass or dull finished pans are best for pastries to prevent a soggy crust.

L. Placing aluminum foil over fluted edges during the first part of baking and removing for the last 15 minutes will prevent overbrowning of edges.

M. When using lard for pastry crust, slightly less should be used than if vegetable shortening is used, because lard has more shortening power.

N. Meringue, when used, should be placed on pie while filling is hot. Seal well to the fluted pastry edge.

VIII. Preparation of puff pastries (JS 5)

NOTE: These are sometimes grouped with quick breads and may be covered during that unit.

A. Melt fat in hot water.

B. Add flour and eggs, beating well.

C. Place dough on baking sheet in appropriate shapes.

D. Bake at high temperature (425-450° F)

E. Cool before filling.

F. Sprinkle with powdered sugar or glaze with chocolate frosting or syrup.

IX. Desirable characteristics of pastry

A. Appearance

1. Golden brown color
2. Blistery surface
3. Uniform attractive edges

B. Tenderness

1. Cuts easily
2. Holds shape when served

C. Texture

1. Flakes layered throughout crust
2. Crisp eating

D. Flavor

1. Pleasant, bland flavor to enhance filling
2. No off-taste

X. Poor characteristics of pastry and possible causes (AS 2)

A. Burned - overbaked

B. Pale, dull color - underbaked, wrong pan, rolled too thick

C. Smooth, not blistered surface - overhandled, too much flour when rolled, rolled too thick

D. Uneven edge - crust not rolled in even circle, not carefully shaped

E. Shrunken - crust stretched when placed in pan

F. Large air bubbles - not pricked well enough

G. Tough, rubbery - too much liquid, overhandled, too little fat

H. Too tender, falls apart - undermixed, not enough liquid, too much shortening

I. Compact, doughy-soggy - underbaked, too much liquid, soaked before baking starts

J. Dry, mealy - shortening cut in too finely, not enough liquid

K. Rancid - poor quality shortening, overbaked

L. Raw - underbaked

XI. Care and storage of pastry

A. Best served day of preparation

B. Pastry shells and unfilled puff pastries will keep several days.

C. Fruit pastries will keep several days in a covered ventilated container.

D. Cream filled pastries will keep several days in the refrigerator but tend to get soggy.

E. Baked or unbaked pastry shells freeze well for 4-6 months.

F. Baked and unbaked pastries freeze well for 2-4 months.

NOTE: Chiffon, custard, cream, and meringue pies generally do not freeze well and pumpkin pies are best frozen unbaked.

Cakes

XII. Kinds (classes) of cakes

A. Cakes with fat (shortened) - contain fat (butter, margarine, or vegetable shortening); delicate and tender in texture; differ in flavor according to flavoring used

1. Plain and rich cakes

Plain cakes contain less fat, sugar, and egg than rich cakes; texture is slightly less delicate and tender than rich cakes

2. Gold and white cakes

   Gold cakes contain only yolk of egg; white cakes contain only egg white.

3. Chocolate, fudge, and devil's food cakes

   All flavored with chocolate; fudge and devil's food cakes are more richly flavored with chocolate, darker in color, and more tender in texture than chocolate cakes.

B. Cakes without fat (unshortened) - do not contain fat; have a larger proportion of egg than cakes with fat; texture is spongelike; flavor depends on whether egg yolk or egg white is used and on particular flavoring used

   1. Sponge cakes - contain both egg yolk and egg white; yellow in color

   2. Angel food cakes - contain the white of egg only; white in color

C. Chiffon cakes - not a true example of a cake without fat; resemble the sponge cake in egg content but contain a liquid fat as one ingredient; also resemble sponge cakes in appearance and texture

XIII. Forms (shapes) of cakes

A. Layer

B. Loaf

C. Cupcakes

D. Sheet

E. Upside down

F. Bundt

G. Tube

H. Tiered

I. Novelty

J. Jelly roll

XIV. Contribution of cakes to the diet (HO 2)

A. Supply mostly calories

B. Other nutrients in small proportion depending on ingredients:

1. Milk and eggs - some protein

2. Enriched flour - B vitamins and iron

XV. Buying cakes (AS 4) (may want to do AS 4 and 5 together)

A. Prepared cakes

1. Frozen

2. Freshly baked

B. Packaged mixes

C. Ingredients to use with a recipe (review functions in Lesson 3) (TM 3)

1. Flour (cake flour)

2. Sugar

3. Eggs

4. Liquid

5. Salt

6. Fat (commonly butter)

7. Leavening

8. Flavoring

9. Cream of tartar - used in sponge cakes to make egg whites whiter, grain finer, and stabilize the egg whites

XVI. Preparation of cakes

A. General guidelines for making cakes (HO 3) (TM 4)

1. Assemble all ingredients and utensils before beginning to measure and bring ingredients to room temperature; exact measuring is necessary for cakes.

2. Preheat oven for cakes; temperature must be exact.

3. Grease shiny pans slightly or line bottom with wax paper for butter cakes; then sprinkle with flour; do not grease pans for sponge cakes; pans should be correct size.

4. Do not overmix or undermix.

5. When baking the cake, place pans in the center of the rack so pans do not touch each other or sides of the oven; avoid placing one pan directly above another.

6. Avoid opening oven door during baking, especially during the first half of baking while cake is rising.

7. While cakes made with fat are baked at moderate temperatures of 350° -375°, cakes without fat are usually baked at 350° or less.

8. Follow the recipe for baking time and test for doneness 5 minutes before baking time is up; cake is done if:

    a. It has shrunk away from sides of the pan (not sponge cakes)

    b. A toothpick put in center comes out clean

    c. The crust is golden and springs back when lightly touched

9. Cool cakes properly.

    a. Cakes made with fat - place cakes on a rack to cool slightly in the pan, run a knife around the inside of the pan and invert cake on wax paper-covered cooling racks to cool completely.

    b. Cakes made without fat - leave in the pan and invert; allow to cool completely before removing.

10. Wash pans and utensils thoroughly to remove any grease or oil before using for cakes without fat.

B. Cake faults and possible causes

1. Exterior

    a. Pale color - caused by using wrong pan, underbaking

    b. Too brown - caused by using too much sugar, overbaking, using too hot an oven

    c. Poor volume - caused by using incorrect baking temperature, not baking long enough, using wrong size pan, greasing pan, using poor quality eggs, beating eggs at too high or too low a temperature, not beating eggs sufficiently, overfolding mixture

    d. Sunken - caused by not inverting pan to cool cake, removing cake from pan before cool

2. Interior

    a. Uneven grain - caused by overfolding mixture, not beating eggs enough

    b. Coarse grain - caused by underfolding mixture

c. Dry - caused by overbaking, not using enough liquid

d. Soggy - caused by underbaking, not mixing well enough

e. Solid - caused by using too much flour or liquid, not beating eggs sufficiently

f. Tough - caused by overmixing, not using enough sugar, overbaking

g. Flavor poor; not characteristic of ingredients - caused by using poor quality ingredients, using wrong proportions of ingredients

3. Other faults

a. Cake cracks or humps

1) May be caused by baking at too high temperature

2) Try this: reduce heat, have oven thermostat checked for accuracy

b. Cake falls

1) May be caused by insufficient baking, using self-rising instead of regular flour without reducing the leavening

2) Try this: test for doneness - cake shrinks away from sides of pan; no imprint left when touched lightly on top. Use ingredients specified in tested recipe.

c. Cake runs over edge of pan

1) May be caused by too much batter for pan

2) Try this: use proper pan size; if smaller pans are used, fill them half full and bake remaining batter as cupcakes.

d. Cake breaks

1) May be caused by improper pan preparation or improper cooling

2) Try this: brush pan generously with shortening, then dust lightly with flour; let cake cool in pan or rack about 15 minutes, top crust up. Loosen cake from sides of pan. Place rack on cake and invert both. Remove pan and turn cake top side up immediately. Finish cooling.

e. Cake is lopsided

1) May be caused by unlevel oven, uneven oven heat, cake pans touching

2) Try this: Check to see if oven is level by putting a pan of water in oven. Have oven adjusted. Keep pans 1" from oven walls.

f. Cake doesn't rise

1) May be caused by insufficient leavening

2) Try this: Baking powder may lose its leavening action if it becomes damp. Test by placing a spoonful of it in cold water. It should bubble or foam immediately.

XVII. Mixing methods for cake making (JS 6 - may want to wait until XXIII)

A. Conventional method

1. Fat and sugar are creamed together until light and fluffy.

2. Eggs are beaten into the creamed mixture.

3. Sifted dry ingredients are added alternately with the liquid.

B. Quick method ("one-bowl" method)

1. Dry ingredients are sifted into mixing bowl.

2. Fat and part of liquid are added to the dry ingredients and beaten.

3. The remaining liquid and unbeaten eggs are added last..

C. Angel and sponge method

1. For angel food (HO 4) (JS 7 - may want to wait until XXIII)

a. Egg whites are beaten with some sugar until stiff.

b. Flour and remaining sugar are carefully folded into the beaten egg whites.

2. For sponge

a. Dry ingredients are beaten into egg yolks.

b. Beaten whites are folded into the yolk mixture.

3. For chiffon - usually a "pond" is made in dry ingredients for addition of oil and liquids. (JS 8 - may want to wait until XXIII)

XVIII. Characteristics of quality for cakes

A. Cakes with fat (butter)

1. Velvety and light

2. Small, fine cells with thin walls

3. Crusts are thin and evenly browned.

4. Top crust is smooth or slightly pebbly and gently rounded.

5. Flavor is mild and pleasing.

B. Cakes without fat (sponge and angel food)

1. Large volume

2. Spongy and porous

3. Thin cell walls

4. Tender and moist (not gummy)

C. Chiffon

1. Large volume (not as large as angel food)

2. Moist

3. Cells with thin walls

4. Tender (more tender than sponge, usually)

5. Pleasing flavor

XIX. Care and storage techniques for cakes

A. Most cakes will stay fresh several days.

B. Cakes with cream or custard fillings must be refrigerated.

C. Frosted or unfrosted cakes may be wrapped tightly and frozen (cooked frostings and whipped toppings do not freeze well); frosted cakes will keep 2 - 3 months and unfrosted cakes 3 - 4 months.

D. Cake batters can be frozen in greased baking pans if wrapped tightly, for about 2 months.

XX. Cake frostings (AS 5) (May want to do AS 4 and 5 together)

A. Uncooked frostings

1. Liquid (water, milk, fruit juice, egg white) is mixed with confectioners sugar.

2. Sometimes softened butter or margarine is blended with sugar before adding liquid (this will keep icing softer and creamier longer.).

3. Beating the mixture will make it creamy and fluffy.

4. Convenience forms already prepared are available in cans (smooth, creamy, good flavor, easy, expensive).

B. Cooked frostings

1. Fudge type - syrup is cooked (similar to candy) and powdered sugar is beaten in.

2. Egg white type - egg whites and granulated sugar are cooked and beaten until fluffy.

3. Convenience forms are available in mixes to which hot water is added and then beaten (good results and flavor, easy, expensive).

XXI. Problems with frosting, their causes and solutions

A. Too thin to spread

1. Syrup not cooked enough - reheat over a pan of boiling water. Stir for a few minutes. Remove from the water. Stir until thick enough to spread.

2. Not enough powdered sugar - add more.

B. Too thick to spread

1. Frosting stirred too long or syrup overcooked - stir a small amount of warm water into the frosting until the frosting will spread easily. **Caution:** Add a few drops of water at a time.

2. Too much powdered sugar - add more liquid.

XXII. Steps in frosting a cake (may want to do JS 6, 7, and 8 here)

A. Cool cake completely.

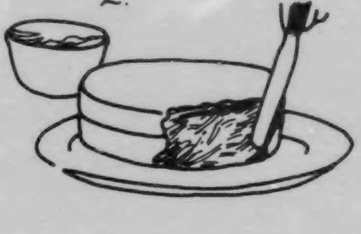
B. Brush aside all loose crumbs.

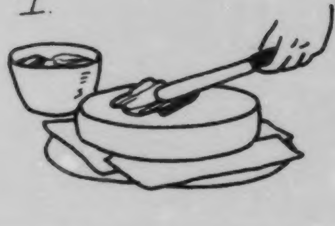
C. Frost top of bottom layer and put layers together. Place the first layer upside down on the plate. You may arrange narrow strips of wax paper under the cake edge to keep the plate clean. Place frosting in the center of the layer and spread it evenly to the edge.

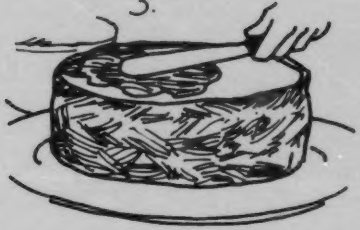
D. Frost sides of cake, sealing crumbs first.

Arrange top layer, bottom side down, on the frosted layer. Frost sides with a spatula.

E. Frost the top of cake. Place frosting on the top layer, and make swirls with spatula or back of spoon. Remove the paper strips, if you have used them.







Candies

XXIII. Terms and definitions for candy making (AS 6 and 7)

A. **Confectioner's sugar** - powdered sugar; pulverized granulated sugar

B. **Crystallization** - to form crystals

C. **Caramelization** - to change granular sugar into a brown liquid form, by heating

D. **Supersaturate** - to cause a solution to be more concentrated than is normally possible under given conditions

E. **Crystalline candies** - soft candies with a fine, creamy texture containing many tiny sugar crystals

F. **Penuche** - candy similar to fudge but made with brown sugar instead of granulated sugar; does not contain chocolate

G. **Noncrystalline candies** - candies which do not contain sugar crystals; they can be chewy or hard

H. **Nougat** - candy made by pouring a honey syrup over stiffly beaten egg white; also has almonds or pistachio nuts

I. **Divinity** - candy made by pouring a white sugar syrup over stiffly beaten egg whites with nuts and candied fruit

J. **Taffy** - pulled candy that can be twisted into shapes

K. **Brittle** - hard, crunchy noncrystalline candy broken in thin irregular pieces

L. **Caramel** - soft, chewy noncrystalline candy with large proportion of milk

M. **"Ball-in-Water" Test** - test in which a little candy syrup is dropped into fresh cold water to check the temperature and stage of doneness.

N. **Bloom** - a gray film on chocolate candy caused by the cocoa butter rising to the surface and becoming hard due to temperature and humidity changes

O. **Marzipan** - a candy of crushed almonds, sugar and egg whites; often shaped into various forms

XXIV. Contribution of candies to the diet

A. Carbohydrate (sugar)-calories

B. No other nutrients

XXV. Kinds of candy

A. Crystalline

1. Fudge
2. Penuche
3. Fondant
4. Marzipan
5. Divinity

B. Noncrystalline

1. Caramels
2. Nougats
3. Taffy
4. Brittle
5. Lollipops

XXVI. Major ingredients of candy

A. Sugar (basic ingredient)

1. Granulated
2. Brown
3. Confectioners

B. Syrup (liquid sweetener)

  1. Molasses
  2. Honey
  3. Maple syrup
  4. Corn syrup (light or dark)

C. Liquid

  1. Water
  2. Milk, evaporated or condensed.

D. Egg whites (stiffly beaten for some porous candies)

E. Flavorings

  1. Chocolate
  2. Peppermint
  3. Butter
  4. Vanilla
  5. Licorice
  6. Coffee
  7. Wintergreen
  8. Orange, lemon, etc.

F. Miscellaneous

  1. Fruits
  2. Nuts

XXVII. Preparation of candies (JS 9) (HO 5)

A. For cooked candies - sugar is mixed with liquid and heated

B. For crystalline candies, crystals should form, but should be small and fine.

  1. Sugar syrup must be heated to a specific temperature.
  2. Syrup must be cooled to a specific temperature and beaten vigorously.

3. Do not shake pan or stir while cooling.

4. Remove any crystals from sides of pan with a wet cloth.

C. For noncrystalline candies, prevent sugar syrup from forming crystals. (JS 10)

1. Heat syrup to a very high temperature.

2. Add substances like corn syrup, milk, cream, or butter which interfere with crystallization.

3. Use both of the above.

4. Avoid stirring the mixture during cooking.

5. Pour mixture in a prepared pan or into individual pieces as soon as correct temperature is reached.

D. Use a candy thermometer for all candy.

NOTE: If you do not have a thermometer use the "ball-in-water" test by dropping a little syrup into fresh cold water. See HO 5.

E. Use a heavy saucepan to cook candy.

F. Never try to double or divide recipes.

G. On humid days, candy may not harden (get firm) properly.

H. Always wash spoon before restirring.

XXVIII. Care and storage of candies

A. Store crystalline candies separate from noncrystalline in an airtight container (should keep about 3 months).

B. Taffies and caramels should be individually wrapped to keep them from sticking.

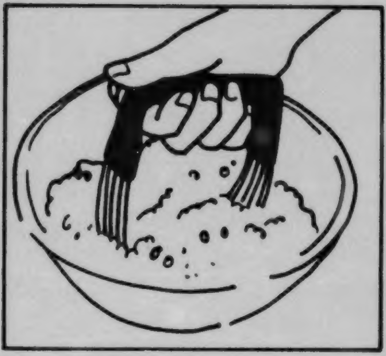
C. Wrap well, seal, and freeze; once thawed, candy should be used immediately.

D. Chocolate candies should be stored in a cool, dry place. (Bloom, which is not harmful, occurs when candies are stored at high temperatures.)

HO 1

Picture Perfect Pastries

How to Make Perfect Pastry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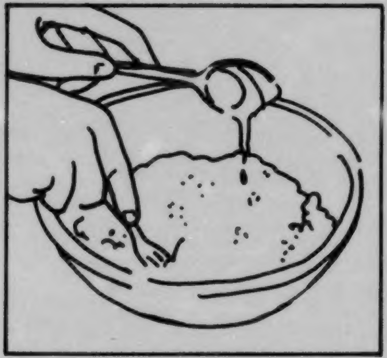
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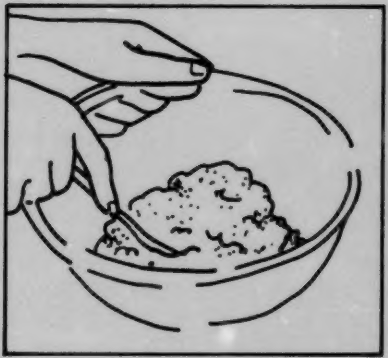
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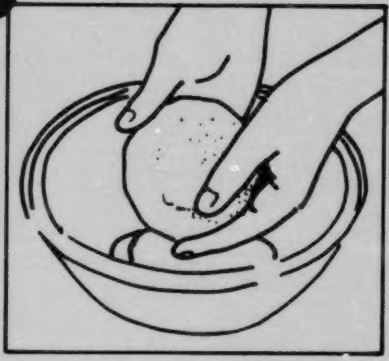
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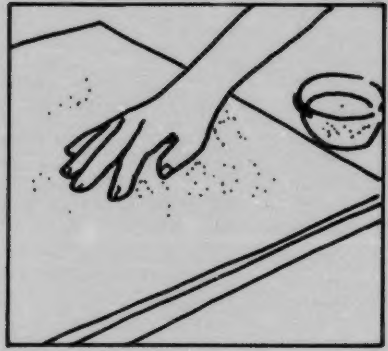
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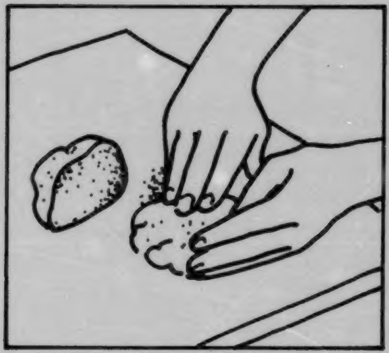
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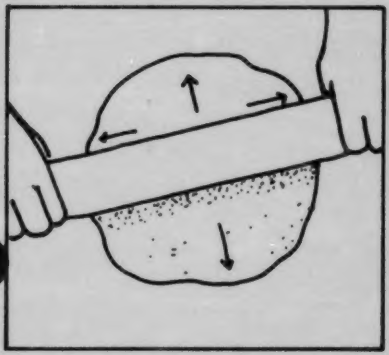
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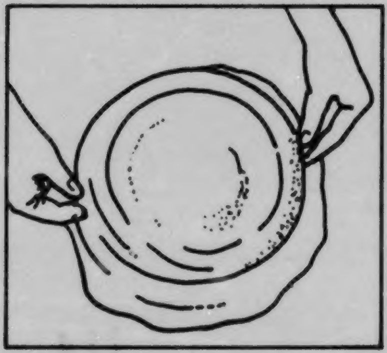
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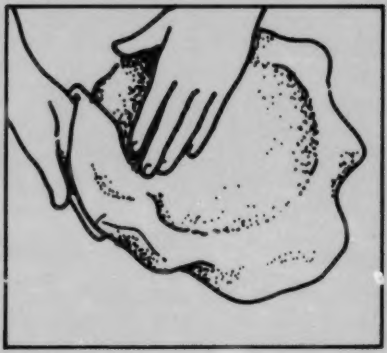
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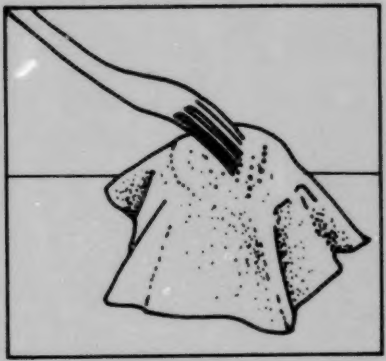
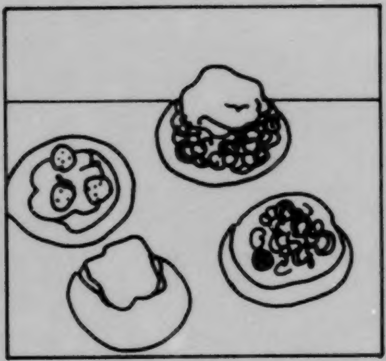
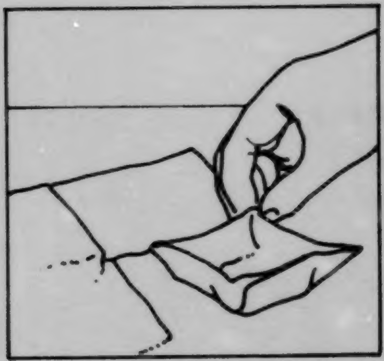
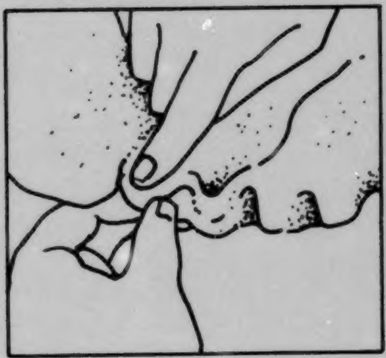
How to Make Tart Shells


Easy-As-Pie Tarts


Simplified Tarts


Tarts Made With Foil

How to Make Easy Edges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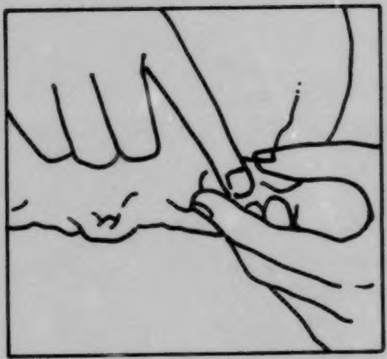
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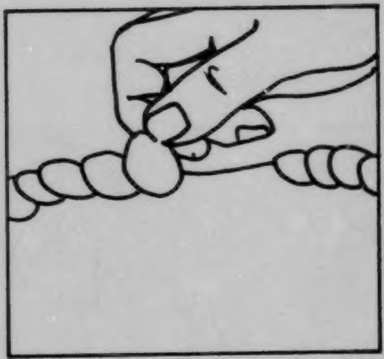
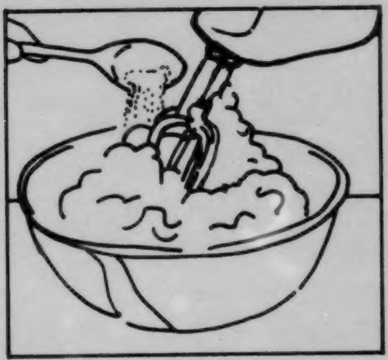

Circle

How to Make Perfect Meringues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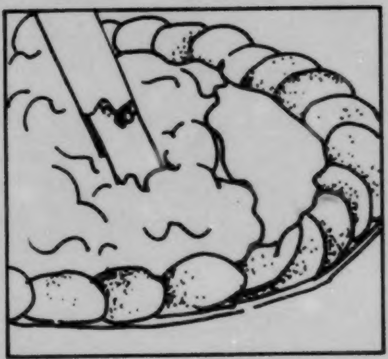
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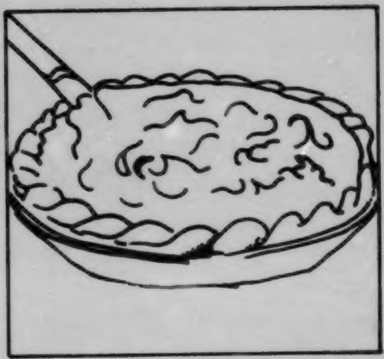
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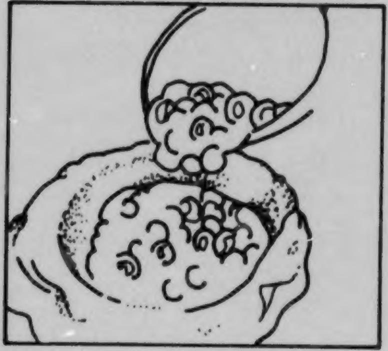
Two Crust Pies



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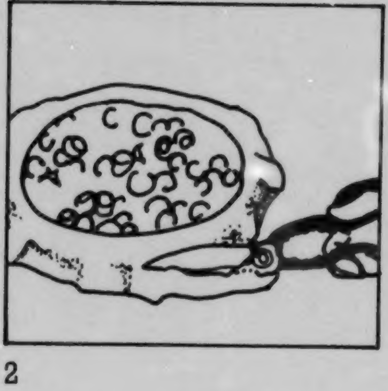

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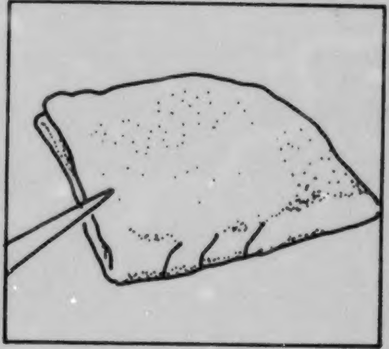

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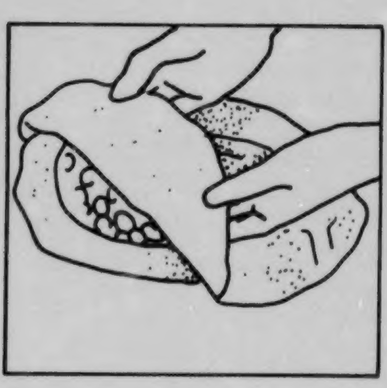

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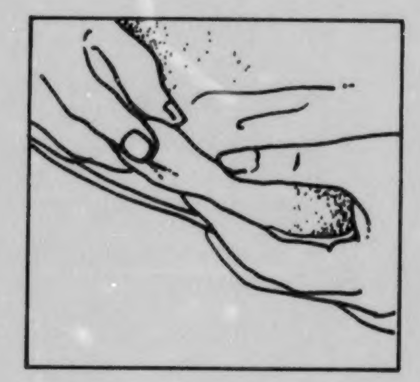

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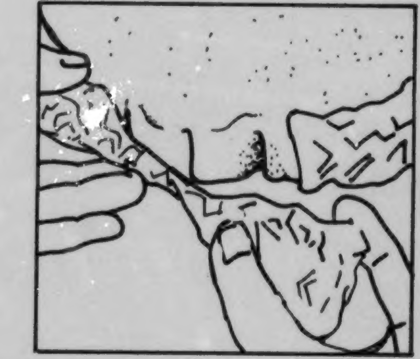

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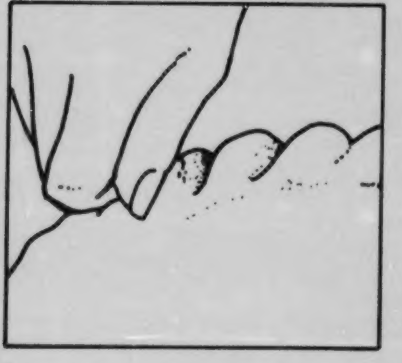
One Crust Pies



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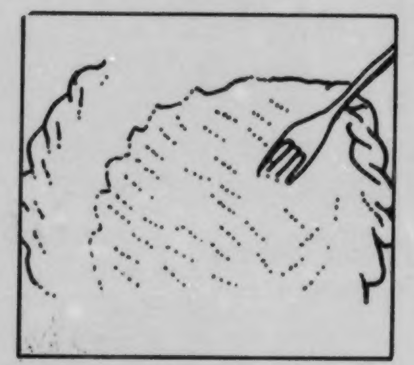

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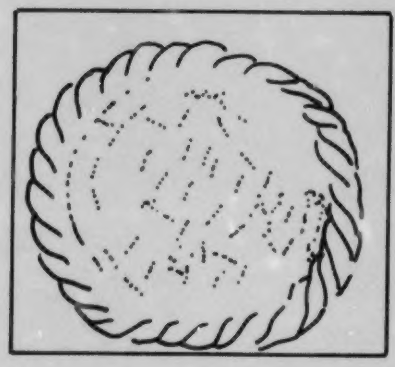

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Cakes
Nutritional Composition

Nutrients (Yellow Cake) Without Frosting

Ingredient	Recipe in grams	Protein grams	Carbohydrate grams	Fat grams	Food Energy Calories
Cake Flour	238	25	181.1	2.4	866
Sugar	300	0	298.5	0	1155
Eggs	144	18.6	1.3	16.6	235
Milk	240	8.4	11.7	8.4	156
Shortening	134	0	0	134	1185
Totals					3597
Totals Per Serving Portion (1/12 cake)					283

Nutrients (Angel Food Cake) Without Frosting

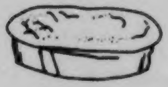
Ingredient	Recipe in grams	Protein grams	Carbohydrate grams	Fat grams	Food Energy Calories
Cake Flour	95	10	72.3	1.0	346
Sugar	300	0	298.5	0	1155
Egg Whites	330	36	2.6	0	168
Totals					1169
Totals Per Serving Portion (1/12 cake)					139

416

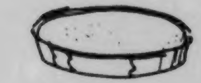
HO 3

The Cake Pan

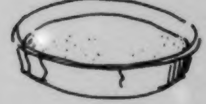
Choosing Correct Pan Size



Too small a pan makes a cake overflow; Results in coarse texture



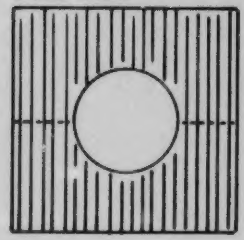
Correct pan size assures a gently rounded top on cake; shiny pans are best to distribute heat evenly



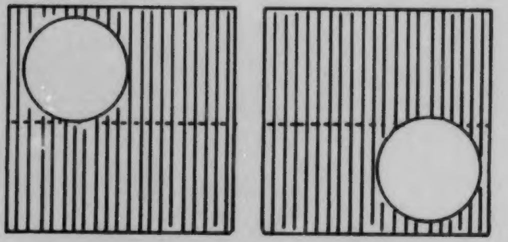
Too large a pan makes cake pale, flat, and shrunken

Placement of the Pans

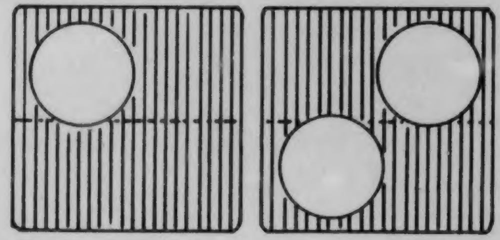
One Pan



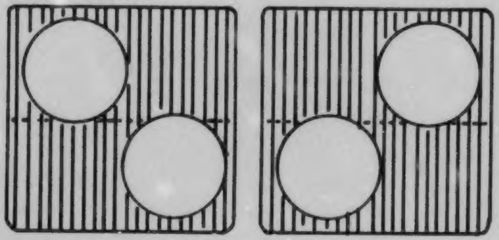
Two Pans



Three Pans



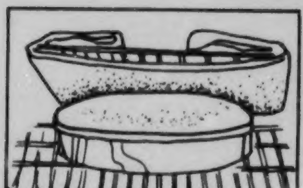
Four Pans



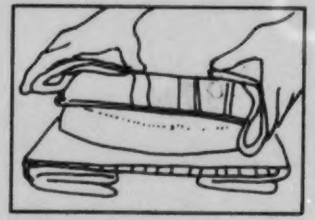
When baking, arrange pans so the cake will bake evenly.

Cooling and Removing From Pans

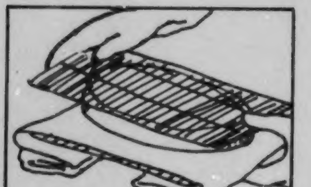
1. Allow hot cake to stand in pan 10 min. on wire rack. Then cover second wire rack with towel and place over top of cake.



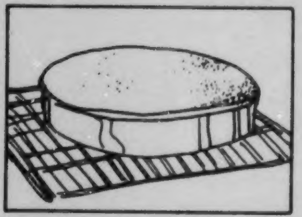
2. After inverting cake and racks together, carefully lift pan from the cake.



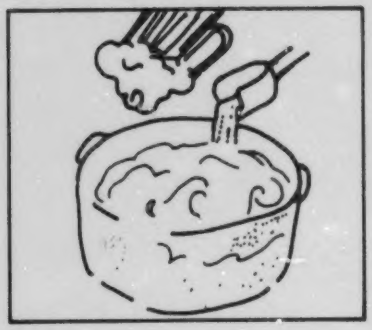
3. Place wire rack over bottom of cake, in preparation for turning it once more.



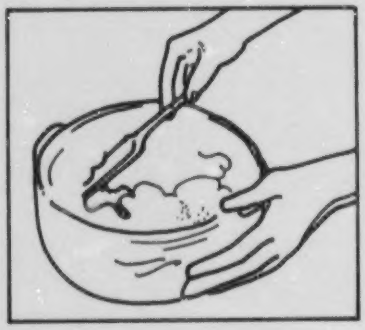
4. Grasp both racks. Turn cake right side up to finish cooling. A hot cake may crack if left on rounded top.



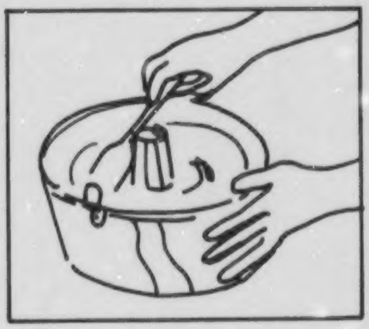
Making An Angel Food Cake



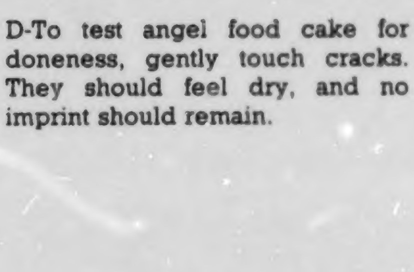
A-Add sugar gradually to egg whites, beating until egg whites form stiff peaks.



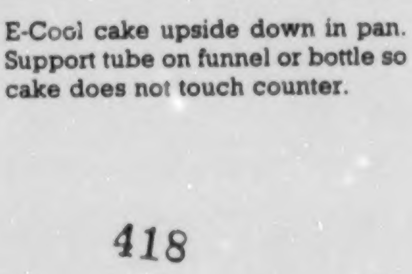
B-Fold the flour-sugar mixture gently into beaten egg whites.



C-After batter has been poured into the pan, use a spatula to break down large air pockets and to seal batter against sides of pan and tube.



D-To test angel food cake for doneness, gently touch cracks. They should feel dry, and no imprint should remain.



E-Cool cake upside down in pan. Support tube on funnel or bottle so cake does not touch counter.

HO 5

Temperatures and Tests for Syrup and Candies

PRODUCT	FINAL TEMPERATURE AT SEA LEVEL*		TEST OF DONENESS	DESCRIPTION OF TEST
Jelly	220°F	104.5°C		Syrup runs off a cool metal spoon in drops that merge to form a sheet.
Syrup	230°F to 234°F	110°C to 112°C	Thread	Syrup spins a 2-inch thread when dropped from fork or spoon.
Fondant Fudge Panocha	234°F to 240°F	112°C to 115°C	Soft ball	Syrup, when dropped into very cold water, forms a soft ball which flattens on removal from water.
Caramels	244°F to 248°F	118°C to 120°C	Firm ball	Syrup, when dropped into very cold water, forms a firm ball which does not flatten on removal from water.
Divinity Marshmallows Popcorn balls	250° to 266°F	121°C to 130°C	Hard ball	Syrup, when dropped into very cold water, forms a ball which is hard enough to hold its shape, yet plastic.
Butterscotch Taffies	270°F to 290°F	132°C to 143°C	Soft crack	Syrup, when dropped into very cold water, separates into threads which are hard but not brittle.
Brittle Glace	300°F to 310°F	149°C to 154°C	Hard crack	Syrup, when dropped into very cold water, separates into threads which are hard and brittle.
Barley sugar	320°F	160°C	Clear liquid	The sugar liquefies.
Caramel	338°F	170°C	Brown liquid	The liquid becomes brown.

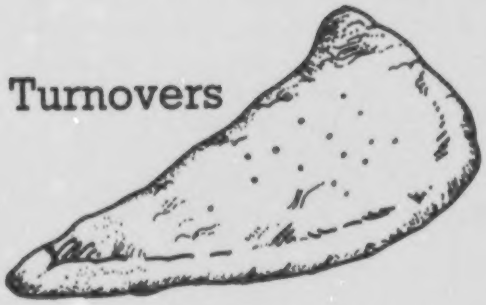
*For each increase of 500 feet in elevation, cook the syrup to a temperature 1°F lower than temperature called for at sea level. If readings are taken in Celcius (Centigrade), for each 900 feet of elevation, cook the syrup to a temperature 1°C lower than called for at sea level.

Source: American Home Economics Association, Handbook of Food Preparation, Washington, D.C., 1975.

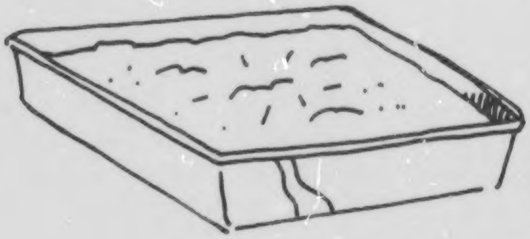
TM 1

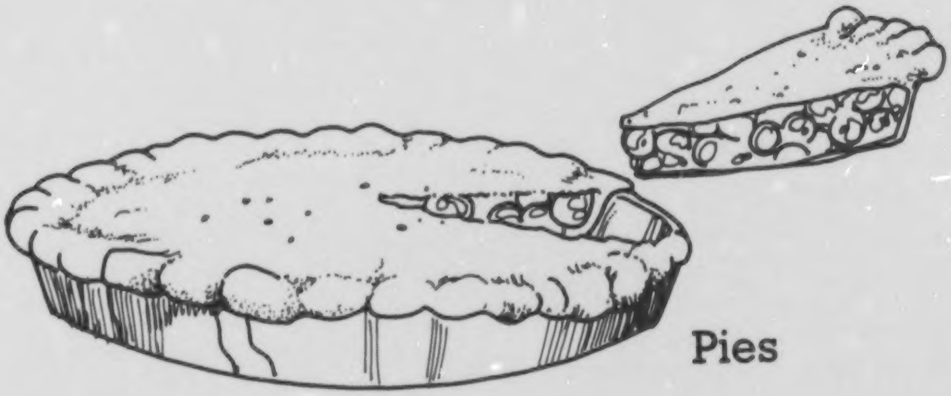
Kinds of Pastry

Turnovers



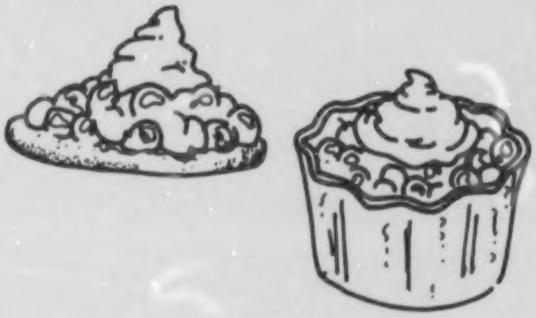
Cobbler

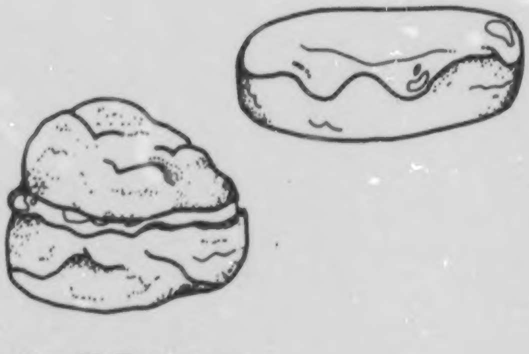




Pies

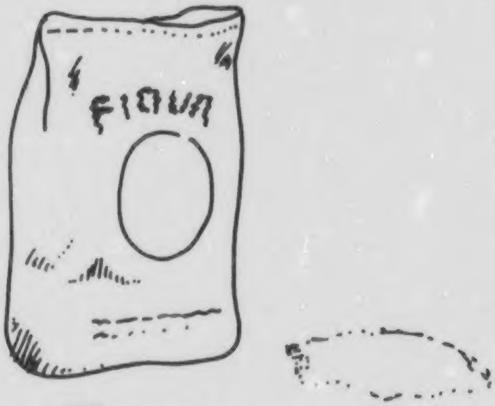
Tarts





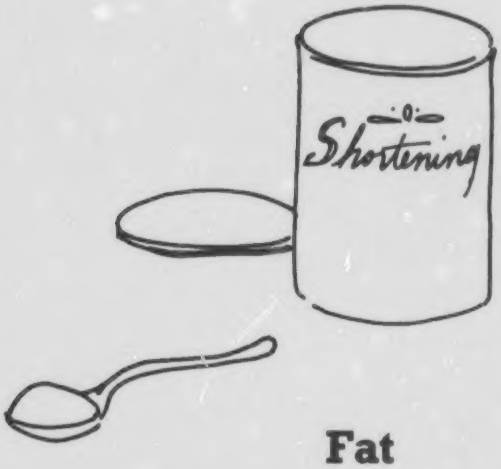
Puff Pastry
Cream Puffs and Eclairs

Basic Pastry Ingredients



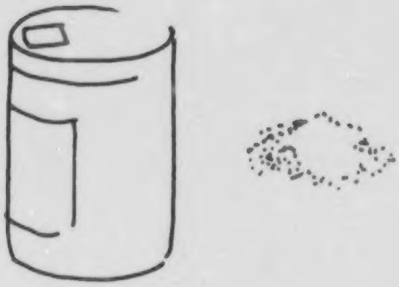
Flour

Provides Structure



Fat

Provides
Tenderness & Flakiness



Salt

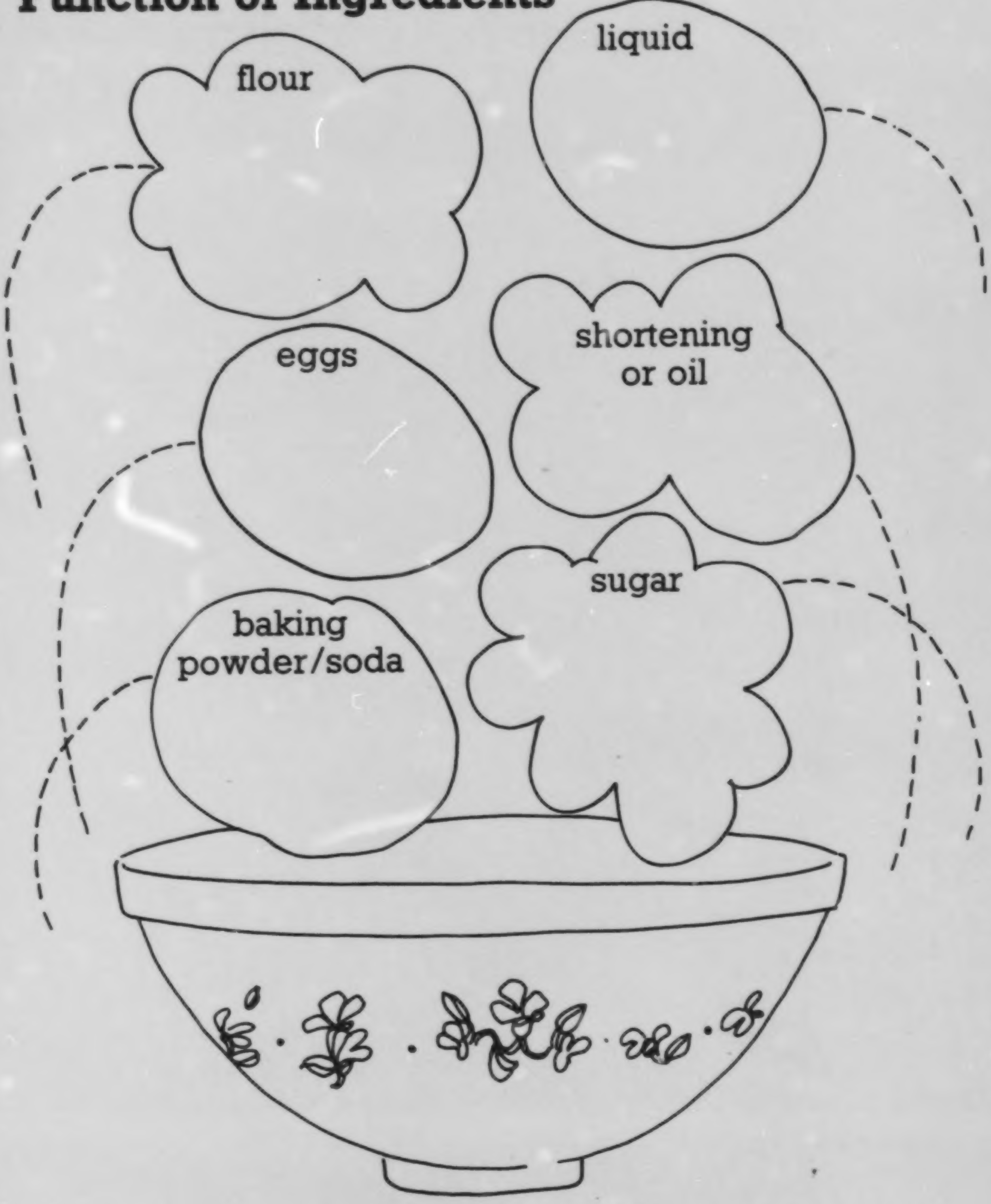
Provides
Flavor

Water

Provides
Liquid To
Combine With
Flour to Form Gluten

Cakes

Function of Ingredients

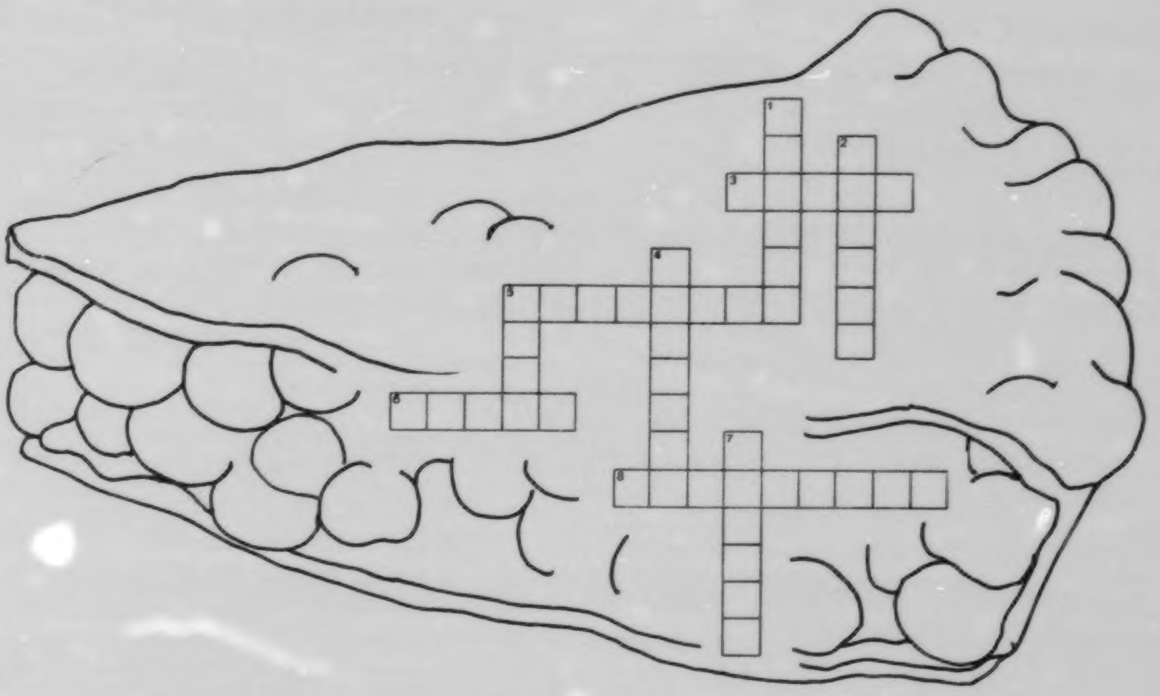

flour
liquid
eggs
shortening or oil
sugar
baking powder/soda

Good Cake Baking Practices

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 6: *Others - Pastries, Cakes, Frostings, and Candies

ASSIGNMENT SHEET #1: PASTRY PUZZLE



ACROSS
3. main ingredient of pastry
5. a small filled pastry made by folding half of the crust over the other half
6. to make a decorative rim on pastry edge
8. A puffed French pastry rounded in shape

DOWN
1. a puffed French pastry rectangular in shape
2. a pastry shell filled with an egg custard, meat, and vegetables
4. a deep dish fruit pie with top crust
7. a thin, flaky, crispy baked dough

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 6: *Others - Pastries, Cakes, Frostings, and Candies

ASSIGNMENT SHEET #2: POOR PASTRY

Directions: Listed below are six problems related to pastry. After each, write a sentence explaining what might have caused the problem. Complete this assignment without referring to your information pages.

1. The crust falls apart when it is being rolled.

2. The crust shrunk from the side of the pan.

3. The crust is tough.

4. The lower crust is soggy.

5. The crust is too brown.

6. The crust is pale in color, but is done.

7. The crust has a rancid taste.

8. The crust is smooth rather than blistery.

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 6: *Others - Pastries, Cakes, Frostings, and Candies

ASSIGNMENT SHEET #3: PASTRY MAZE

A. By following the maze correctly, seven steps in making pastry should be arranged in order. Using a pencil or pen, show the route taken and number each step in correct order. Skip any steps which do not belong in making basic pastry.

B. In the space below list at least five recommended techniques to follow when completing the above steps.

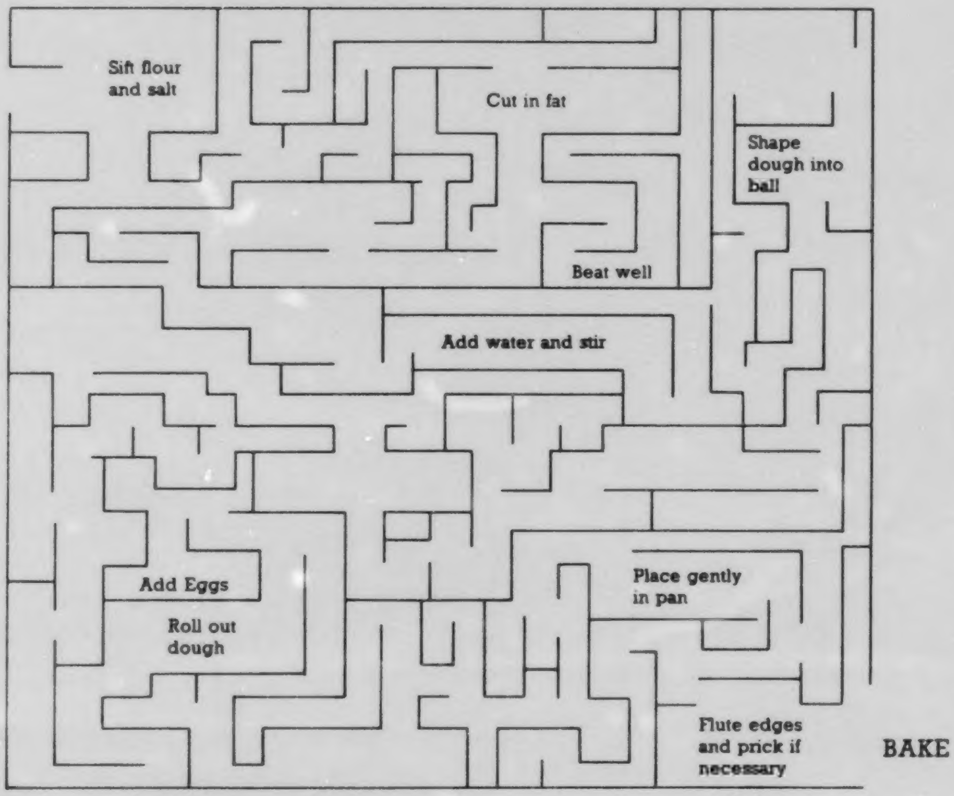
1.

2.

3.

4.

5.


Sift flour and salt
Cut in fat
Shape dough into ball
Beat well
Add water and stir
Add Eggs
Roll out dough
Place gently in pan
Flute edges and prick if necessary
BAKE

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 6: *Others - Pastries, Cakes, Frostings, and Candies

ASSIGNMENT SHEET #4: COMPARING CAKES

Directions: Use a basic cake to compare a product made from scratch, made from a mix, purchased frozen, and purchased fresh from a bakery. Record the data below and draw conclusions. The instructor or a student may want to demonstrate the "scratch" and mix cakes to the class during one lab and have the class evaluate during the following lab. If not all types of cakes are available, only compare those available.

Type of cake	Preparation time	Appearance	Texture	Taste	Cost include ingredients you had to add to mixture	Number of servings	Cost per serving
"Scratch"							
Mix							
Frozen-Store							
Packaged Ready-to-eat							
Bakery-Fresh							

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Conclusions -

Directions: In the space below each column write your conclusions based on the comparison of cakes made in class

<table>
<tr><th colspan="3">When might I ...</th></tr>
<tr>
<td> Make a Recipe Cake</td>
<td> Make a Cake Mix</td>
<td> Buy a Ready-Made Cake</td>
</tr>
<tr><td></td><td></td><td></td></tr>
</table>

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 6: *Others - Pastries, Cakes, Frostings, and Candies

ASSIGNMENT SHEET #5: COMPARING FROSTINGS

Part A
Directions: Use the creamy frosting (Job Sheet #1B) and compare to a commercial cocoa frosting. Record the data below

Conclusions:

1. ____________________

2. ____________________

Part B **Directions:** use the 7-minute frosting (Job Sheet #2B) and compare to a similar commercial cooked frosting mix. Record data below.

Conclusions:

1. ____________________

2. ____________________

Type of Frosting	Prep. Time	Appearance	Texture	Taste	Cost	Amount
"Scratch"						
Commercial Ready-to-spread						
Type of Frosting	Prep. Time	Appearance	Texture	Taste	Cost	Amount
"Scratch"						
Commerical Mix						

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 6: *Others - Pastries, Cakes, Frostings, and Candies

ASSIGNMENT SHEET #6: CANDY SCRAMBLE

Directions: 32 words are hidden in the scrambled letters. Circle the words. They appear vertically, horizontally, and diagonally. The words may be read either forward or backward. Some words may overlap. You will not use every letter given. All words relate in some way to candy making. On the back of this assignment list each word you find and briefly tell how it relates to candy making.

U T A B U T D
F H O D I T M A L O N
C R Y S T A L L I N E O P
Y P E O T A R S I O G T E O I
A E U D N O F O T X G I N T P T N
I Q U T R A L F E U S D U O A I U L A
X O D R C H E W Y D N A C H N L L Y W B A
T A C B C A D R E P O H X K C O L D U T E
R U F A R B C B X O E P L R R C O T S C O
I M B Q A I C R E A M Y Y T Y O L D E U D
T O Y E C M T I L N V S R Q S H L S S D E
V Y H T K R A T Q E T X B U T C E W S E P
K E U B O I H S L A S O G T A O M C A M T
F B M G C F V K L E Y A P B L O O M L I N
D I C O F F E E V R X W M L L N T O T
D O C U B E Q R U N A P I Z R A M
S O F T X E T P E C A N O N S
A N E S E C A R A M E L S
O X A C E G I K O P R
Q T U D V M I T

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UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 6: *Others - Pastries, Cakes, Frostings, and Candies

ASSIGNMENT SHEET #7: CANDY CAPERS

Directions: By adding and subtracting the items suggested below, you will end up with a lovely candy assortment. Example: A vegetable, plus a kernel, plus a word meaning "fragile" = peanut brittle.

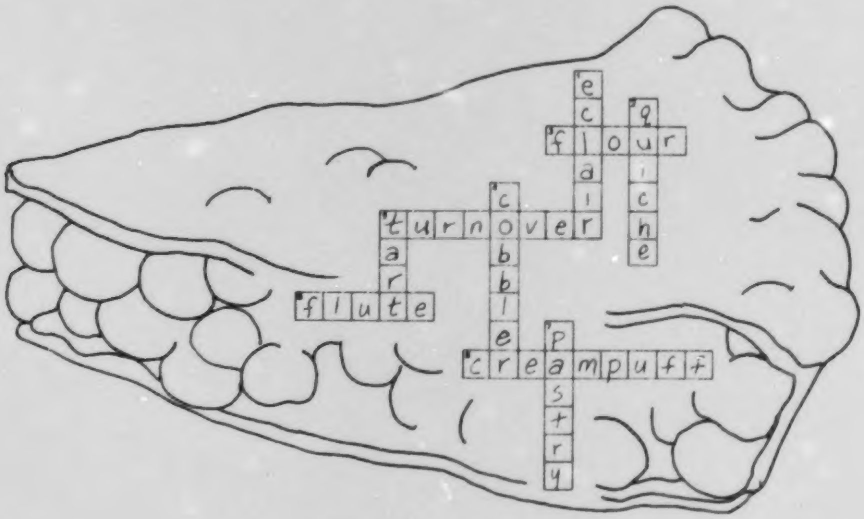
1. One who renders decisions in court minus J plus F
2. A spice plus a place where money is made
3. A word meaning "crazy" minus D plus T
4. An automobile plus a desert animal minus C
5. An instrument for writing with ink plus a pain minus O plus U
6. To say prayers minus Y plus a mark on a piece of paper
7. T plus a popular hot beverage minus C
8. A part of speech that names something minus N plus a fence door minus E
9. A girl in Wonderland minus A and E plus O plus a grain grown in China
10. An Oklahoma Indian tribe minus TAW plus O plus a word meaning "tardy"
11. To lie around lazily plus a pronoun plus a sharp noise
12. A word meaning "to be affectionate toward" plus an industrious insect
13. To plunge into water headfirst minus E plus a preposition plus a pronoun plus Y

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 6: *Others - Pastries, Cakes, Frostings, and Candies

ANSWERS TO ASSIGNMENT SHEETS

Assignment Sheet #1


eclair
quiche
flour
turnover
cobbler
tart
flute
creampuff
pastry

Assignment Sheet #2

1. Undermixed
   Not enough liquid
   Too much shortening
2. Crust stretched when placed in pan
3. Too much liquid
   Overhandled
   Too little shortening
4. Underbaked
   Too much liquid
   Filling soaked crust before baking
5. Overbaked
6. Underbaked
   Wrong type pan
   Rolled too thick

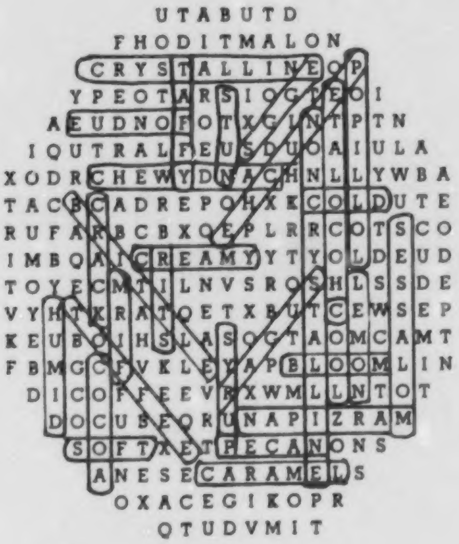
B. Answers will vary but might include:

I have lots of time	don't have much time	have no time
want to try something new	want a "sure" success	have lots of money
want the satisfaction	buy them on sale	for a special occassion
want to impress someone	serve them with something else	
have a low budget	want just a basic cake	

Assignment Sheet #5

Answers will vary

Assignment Sheet #6



UTABUTD
FHODITMALON
CRYSTALLINEOP
YPEOTARSIOGTEOI
AEUDNOFOTXGINTPTN
IQUTRALFEUSDUOAIULA
XODRCHEWYDNACHNLLYWBA
TACBCADREPOHXKCOLDUTE
RUFARBCBXOEPLRRCOTSCO
IMBQAICREAMYYTYOLDEUD
TOYECMTILNVSROSHLSSDE
VYHTKRATOETXBUTCEWSEP
KEUBOIHSLASOCTAOMCAMT
FBMGCFVKLEYAPBLOOMLIN
DICOFFEEVRXWMLLNTOT
DOCUBEORUNAPIZRAM
SOFTXETPECANONS
ANESECARAMELS
OXACEGIKOPR
QTUDVMIT

Assignment Sheet #7

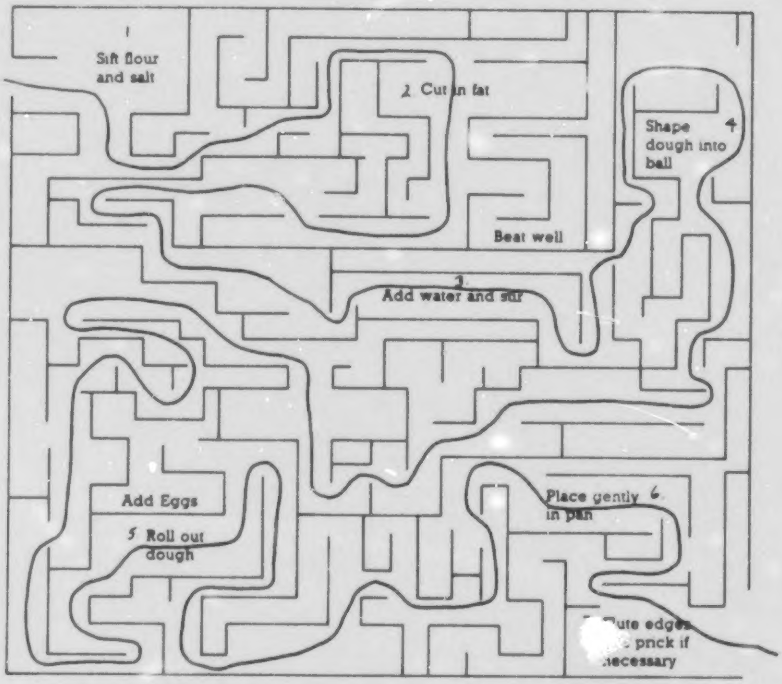
1. fudge
2. peppermint
3. taffy
4. caramel
5. penuche
6. praline
7. toffee
8. nougat
9. licorice
10. chocolate
11. lollipop
12. fondant
13. divinity

7. Poor quality shortening
   Overbaked

8. Overhandled
   Too much flour when rolled
   Rolled too thick

Assignment Sheet #3

A. Maze


1
Sift flour and salt
2 Cut in fat
Shape dough into ball 4
Beat well
3
Add water and stir
Add Eggs
5 Roll out dough
Place gently 6 in pan
Flute edges
prick if
necessary

B. Any five of the following

1. Use only enough water to make ingredients stick together
2. Handle dough quickly and lightly
3. Use as little flour as possible when rolling
4. Roll from center of dough outward, lifting rolling pin at end of each stroke
5. Roll dough 1 1/2"-3" larger than pan, 1/8" thick
6. Do not stretch dough
7. Prick one crust pastries which are baked before filling
8. Cut slit in top of 2-crust pastries

Assignment Sheet #4

A. Chart should be filled out to the satisfaction of the instructor with proper conclusions reached.

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 6: *Others - Pastries, Cakes, Frostings, and Candies

JOB SHEET #1: PIE CRUST COMPARISON

Directions: As a class, prepare and bake a pie crust following Handout #1, from a mix, and from a frozen, ready-to-bake product. Compare them in appearance, texture, taste, time, cost, and pride and satisfaction of accomplishment. Make observations, draw conclusions and state preferences.

Type of Pie Crust	Appearance	Texture	Time to mix, bake and clean up	Cost	Pride and Satisfaction
"Scratch"					
Mix					
Frozen					

Observations, Conclusions, and Preferences:

1. ______________________________
2. ______________________________
3. ______________________________
4. ______________________________
5. ______________________________

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 6: *Others - Pastries, Cakes, Frostings, and Candies

JOB SHEET #2: PIE FILLING COMPARISON

Directions: As a class, prepare a pie filling (recommend apple or peach) from fresh fruit, canned fruit and prepared canned filling; compare in appearance, texture, taste, time, and cost. Make observations, draw conclusions and state preferences.

NOTE: A comparison could also be made of a cream filling made from a recipe, from a mix requiring cooking and an "instant" mix.

Type of filling	Appearance	Texture / Consistency	Taste	Time (preparation, baking and clean-up)	Cost
Fresh fruit					
Canned fruit					
Prepared Canned filling					

How do these compare in appearance, taste, cost, time, and number of servings, with purchased frozen pies and bakery pies?

Observations, Conclusions, and Preferences:

1.

2.

3.

4.

5.

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 6: *Others - Pastries, Cakes, Frostings, and Candies

JOB SHEET #3: PREPARE A 2-CRUST APPLE PIE

NOTE: Pie will be removed from oven after class period (if 50-55 minutes) and pie will be evaluated the following day.

I. **Ingredients**

1 1/2 cups all purpose flour
3/4 teaspoon salt
1/2 cup plus 2 tablespoons shortening
3 tablespoons water
4 to 5 cups sliced apples
1/2 to 3/4 cup sugar
3/4 teaspoon cinnamon
1 tablespoon butter

II. **Equipment**

8-inch pie pan
Mixing bowl
Pastry blender
Metal spatula or knife
Rubber spatula
Spoon
Measuring cups
Measuring spoons
Liquid measuring cup
Fork
Floured board
Rolling pin

III. **Procedure**

A. Stir 1 1/2 cups flour and 3/4 teaspoon salt together in mixing bowl.
B. With pastry blender, thoroughly cut in 1/2 cup plus 2 tablespoons shortening.

NOTE: Particles should be the size of tiny peas.

C. Sprinkle 3 tablespoons water into flour, a tablespoon at a time.
D. Mix lightly with a fork after each tablespoon of water until all flour is moistened.
E. Mix dough thoroughly until it cleans the sides of the bowl.

F. Gather the dough together with your hands and press firmly into a ball.

NOTE: If dough does not hold together, 1 to 2 teaspoons water may be added, one at a time.

G. Divide dough in half.
H. Place half of dough on floured board.
I. With rolling pin, roll from center edges in all directions.

NOTE: If edges begin to break, pinch together.

J. Roll pastry until it is about 1 1/2 inches larger around than inverted pie pan.
K. Fold pastry in half.
L. Transfer to pie pan.
M. Unfold.
N. To prevent stretching, ease pastry gently into pan and press toward center of pan with fingertips.
O. Combine sugar and cinnamon.
P. Mix lightly with apples.
Q. Pour into pastry-lined pie pan.
R. Dot with butter.
S. Roll out top crust.
T. Cut slits in top crust.
U. Cover apples with top crust.
V. Seal.
W. Flute edge of pie.
X. Bake 50 to 60 minutes at 425 degrees.

NOTE: When done, crust should be nicely browned, and apples cooked through.

Y. Evaluate.

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 6: *Others - Pastries, Cakes, Frostings, and Candies

STUDENT/TEACHER EVALUATION FOR JS #3

Directions: Circle the appropriate rating below and total your score.

How Do You Rate on Making 2-Crust Pastry???

	Excellent			Poor
Appearance				
Uniform brown crust	4	3	2	1
Attractive edges, fits pan well	4	3	2	1
Blistery surface and attractive slits in top (or lattice)	4	3	2	1
Crust Texture				
Even, thin, and crisp	4	3	2	1
Flaky and tender (but not crumbly)	4	3	2	1
Eating Quality				
Good flavor - bland (not salty, scorched, etc.)	4	3	2	1
Filling				
Good flavor (not too tart or not too sweet) and Good color	4	3	2	1
Texture-thickened appropriately	4	3	2	1
Appearance-attractive color and holds shape when cut fills pie well	4	3	2	1

TOTAL:

Comments:

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 6: *Others - Pastries, Cakes, Frostings, and Candies

JOB SHEET #4: PREPARE A ONE-CRUST PIE WITH MERINGUE

NOTE: This laboratory experience may work most successfully by using 2 class periods on the project (2 days of 50-55 minute periods). Bake crust during one period and complete pie during second period.

I. Ingredients

1 cup all-purpose flour
1/2 tsp salt
1/3 cup plus 1 tablespoon shortening (use only 1/3 cup if using lard)
2 tablespoons water
1 box cream pie filling mix plus any ingredients necessary according to mix directions. (Use of convenience food)

NOTE: If time is sufficient, you might want to make the filling from a recipe following guidelines for milk cookery in Home Economics I - Basic Core.

2 egg whites
1/4 tsp cream of tartar
1/4 cup sugar

II. Equipment

8 - inch pie pan
2 mixing bowls (1 med., 1 small)
Pastry blender
Measuring spoons
Measuring cups (dry ingredients)
Liquid measuring cup
Fork
Metal spatula or knife

Rubber spatula
Rolling pin
Saucepan
Wooden spoon
Rotary or electric beater

III. Procedure

A. Stir 1 cup flour and 1/2 teaspoon salt together in mixing bowl.
B. With pastry blender, cut in 1/3 cup plus 1 tablespoon shortening thoroughly .

NOTE: Particles should be the size of tiny peas.

C. Sprinkle 2 tablespoons water into flour, a tablespoon at a time.
D. Mix lightly with a fork after each tablespoon of water until all flour is moistened.
E. Mix dough thoroughly until it cleans sides of the bowl. **NOTE:** If dough does not hold together, 1 - 1 1/2 teaspoons water may be added.
F. Gather dough together with your hands and press firmly into a ball.
G. Place dough on floured board.
H. With rolling pin, roll from center edges in all directions. NOTE: If edges begin to break, pinch together.
I. Roll pastry until it is about 2 inches larger all around than inverted pie pan.
J. Fold pastry in half.
K. Transfer to pie pan.
L. Unfold.
M. To prevent stretching, ease pastry gently into pan and press toward center of pan with fingertips.
N. Trim edges of crust evenly to 1 inch from edge.
O. Flute edges of crust.
P. Prick pastry thoroughly to prevent puffing while baking.
Q. Bake 8-10 minutes at 475 degrees F. until evenly browned.
R. Let cool.
S. Prepare cream filling mixture according to mix directions or recipe.
T. Fill cooled pie shell.
U. Beat egg whites with cream of tartar until frothy.
V. Gradually beat in sugar, a tablespoon at a time.
W. Beat until stiff and glossy.
X. Pile meringue onto hot pie filling, being sure to seal meringue all around the edge.
Y. Swirl or pull points on meringue for decorative top.
Z. Bake 8-10 minutes at 400 degrees F. or until delicately browned, then cool gradually.
AA. Evaluate.

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 6: *Others - Pastries, Cakes, Frostings, and Candies

Student/Teacher Evaluation For Job Sheet #4

HOW DO YOU RATE ON MAKING A 1-CRUST MERINGUE PIE?

Score your product PERFECT (16) if it has all the qualities listed in each section of this chart. If less than PERFECT, score it accordingly: Good (3) Fair (2) or Poor (1). Evaluate the crust before filling.

Scorecard for Pastry

APPEARANCE				
Golden brown color; blistery surface; uniform attractive edges; fits pan well	4	3	2	1
TENDERNESS				
Cuts easily with table knife or fork but holds shape when served	4	3	2	1
TEXTURE				
Flakes layered throughout crust; crisp eating	4	3	2	1
FLAVOR				
Pleasant, bland flavor to enhance filling	4	3	2	1
TOTAL SCORE				

Scorecard for Filling

APPEARANCE				
Appropriate color; holds shape	4	3	2	1
TEXTURE				
Smooth; proper consistency	4	3	2	1
FLAVOR				
Pleasant, appropriate taste	4	3	2	1
TOTAL SCORE				

Scorecard for Meringue

HIGH AND FLUFFY				
Whites stand high; good volume	4	3	2	1
DELICATE BROWN				
Evenly browned; not pale colored; not burned.	4	3	2	1
CUTS EASILY				
Knife slices easily and evenly through meringue; not tough; not too soft and runny	4	3	2	1
NO SHRINKAGE OR WEEPING				
Meringue spreads across entire pie top; covers filling and edge of crust. Meringue free of moisture beads, sugar completely dissolved	4	3	2	1
TOTAL SCORE	__________			

Comments:

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 6: *Others - Pastries, Cakes, Frostings, and Candies

JOB SHEET #5: PREPARE CREAM PUFFS PASTRY

NOTE: This job sheet is planned so that it will be partially completed in one 50-minute class period; puffs will be removed from oven after class and filled and evaluated the following day. This makes approximately 8 cream puffs.

I. Ingredients

1 cup water
1/2 cup butter or margarine
1 cup all-purpose flour
4 eggs
Vanilla Cream or Chocolate Pudding

NOTE: Pudding could also be made from a mix or recipe if time permits.

Confectioner's sugar

II. Equipment

Medium saucepan
Wooden spoon
½ and ¼ cup size measuring cups
Liquid measuring cup
2 baking sheets
Rubber spatula

III. Procedure

A. Preheat oven to 400 degrees F.
B. Heat water and butter to rolling boil.
C. Stir in flour.
D. Stir vigorously over low heat about one minute or until mixture forms a ball.
E. Remove from heat.
F. Beat in eggs (using wooden spoon) all at one time.
G. Continue beating until smooth.
H. Drop dough by scant ¼ cupfuls 3 inches apart, on ungreased baking sheets.
I. Bake 35-40 minutes or until puffed and golden.
J. Cool away from draft.
K. Cut off tops
L. Pull out any filaments of soft dough.
M. Carefully fill puffs with cream pudding.
N. Replace tops.
O. Dust with confectioner's sugar.
P. Refrigerate until serving time.
Q. Evaluate.

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 6: *Others - Pastries, Cakes, Frostings, and Candies

Student/Teacher Evaluation of Job Sheet #5

RATE YOUR PUFF PASTRY

	Excellent	Good	Fair	Poor
COLOR				
Evenly golden browned	1	2	3	4
GENERAL APPEARANCE				
Neatly filled and dusted relatively uniform mounded shape	1	2	3	4
VOLUME				
Good volume with space inside for filling	1	2	3	4
TASTE				
Rather bland taste with no "off" flavor	1	2	3	4
TOTAL SCORE				

Comments:

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 6: *Others - Pastries, Cakes, Frostings, and Candies

JOB SHEET #6: CAKE WITH FAT (Shortened/Butter)

Part A: Yellow cake

I. Ingredients

2¼ cups sifted cake flour
1½ cups sugar
1 tablespoon baking powder
½ teaspoon salt
½ cup shortening
1½ teaspoons vanilla
1 cup milk
2 eggs

II. Equipment

2 8" round layer pans
Sifter
Paper towel
Measuring cups
Measuring spoons
Rubber spatula
Metal spatula
Electric mixer
Mixing bowl

III. Procedure

A. Preheat oven to 350°F.
B. Have all ingredients at room temperature.
C. Lightly grease and flour two 8" round layer pans.
D. Sift flour, sugar, baking powder, and salt together into mixing bowl.
E. Add shortening, vanilla, and about two-thirds of the milk.
F. Beat at medium speed with an electric mixer for 2 minutes or 200 strokes by hand.
G. Add remaining milk and eggs.
H. Beat an additional 2 minutes or 300 strokes by hand, scraping bowl often.
I. Pour batter into prepared pans, spreading batter toward the edges, leaving a slight depression in the center.
J. Bake 30-35 minutes.
K. Cool 10 minutes.
L. Remove from pans and cool completely before frosting.
M. Evaluate.

Part B - Uncooked Frosting (Choose 1 of the frostings below)

Choice #1

CREAMY BUTTER FROSTING*

I. Ingredients

1/3 cup butter or margarine, softened
3 cups confectioners' sugar
Few grains salt
1½ teaspoons vanilla
About 2 tablespoon milk

II. Equipment

Mixing bowl
Measuring cups
Measuring spoons
Metal spatula
Rubber spatula
Mixing spoon
Electric mixer (optional)
Knife

III. Procedure

A. Blend butter and sugar.
B. Add vanilla and milk.
C. Beat until smooth and of spreading consistency.
D. Spread on cake.

*for variations use the same ingredients with these changes:

Orange: Omit vanilla and substitute orange juice for milk. Stir in 2 tsp. grated orange peel.

Maple Nut: Substitute ½ cup maple flavored syrup for the milk and vanilla. Stir in ¼ cup chopped nuts.

Mocha: Substitute cold strong coffee for milk and vanilla.

Choice #2

CREAMY COCOA ICING

I. Ingredients

2 2/3 cups confectioner's sugar
1/3 cup cocoa
1/3 cup soft butter
3 - 4 tbsp milk

II. Equipment

Mixing bowl
Sifter
Measuring cups
Measuring spoons
Metal spatula
Rubber spatula
Mixing spoon
Electric mixer (optional)
Knife

III. Procedure

A. Sift sugar and cocoa together.
B. Add butter and milk.
C. Stir until well blended and smooth.
D. Spread on cake.

SCORECARD FOR JOB SHEET #6: CAKES WITH FAT (BUTTER-TYPE)

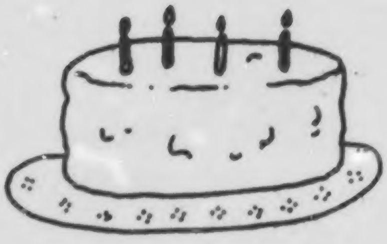
	Perfect	Good	Fair	Poor
APPEARANCE: Surface smooth, fine grained, and golden brown. Contour has slightly rounded top. High volume. Not peaked or cracked; not sunken	4	3	2	1
TEXTURE: Fine grained. Small thin cell walls evenly distributed. Light but not crumbly.	4	3	2	1
CRUMB: Soft and velvety. Slightly moist. Light and tender. Not dry, soggy, solid, or tough	4	3	2	1
FLAVOR: Delicate, sweet, well blended	4	3	2	1

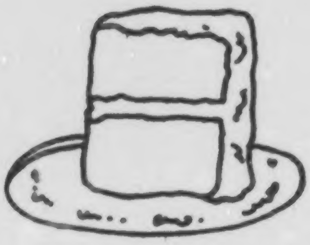
16 = Perfect   15-12 = Good   11-8 = Fair   7-4 = Poor   Total ________

SCORECARD FOR UNCOOKED FROSTINGS

APPEARANCE: Smooth; no crumbs in icing; attractively swirled; well covered	4	3	2	1
TEXTURE: Creamy and not lumpy or grainy; Not too thin; not too thick	4	3	2	1
FLAVOR: Rich, creamy flavor. No off taste	4	3	2	1

12 = Perfect   11-9 = Good   8-6 = Fair   5-3 = Poor   Total ________





UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 6: *Others - Pastries, Cakes, Frostings, and Candies

JOB SHEET #7: CAKE WITHOUT FAT (sponge type)

Part A - Angel Food Cake*

I. **Ingredients**

1 cup sifted cake flour
1½ cups sugar
1½ cups (10-12) egg whites
⅛ tsp salt
1½ tsp cream of tartar
1½ tsp vanilla
½ tsp almond extract

II. **Equipment**

Sifter
Measuring cups
Measuring spoons
Metal spatula
Wax paper
Large mixing bowl
Rotary beater or electric mixer
Rubber spatula
Tube cake pan
Knife
Soda bottle

III. **Procedure**

A. Preheat oven to 375°F.
B. Sift the flour and half of the sugar together onto a sheet of waxed paper.
C. In large mixing bowl, combine egg whites (at room temperature), salt, and cream of tartar.
D. Add flavorings and beat until egg whites reach the soft peak stage.
E. Gradually add the remaining sugar, about 2 tbsp. at a time.

---

*To cut down on the number of egg whites and baking time, this recipe can be successfully cut in half. Bake in a 9 x 5 x 3" loaf pan (with wax paper lining bottom) for 25 minutes.

F. Continue beating until meringue forms stiff peaks.
G. Sift one-fourth of the flour-sugar mixture over the meringue, folding it gently until flour just disappears.
H. Continue sifting and folding until all of the flour-sugar mixture has been added.
I. Gently push batter into a 10" ungreased tube pan.
J. Cut through batter with a spatula or knife to remove large air bubbles.
K. Bake on lowest oven rack for 35-40 minutes or until a light touch does not leave an imprint.
L. Invert pan over a long necked bottle and let hang until completely cool, about 1 hour.
M. Frost if desired.
N. Evaluate.

Part B - Cooked Frosting

SEVEN-MINUTE FROSTING

I. Ingredients

2 unbeaten egg whites
1½ cups granulated sugar
2 tsp light corn syrup or ¼ tsp cream of tartar
1/3 cup cold water
Dash salt
1 tsp vanilla

II. Equipment

Measuring cups
Measuring spoons
Double boiler
Electric mixer
Rubber spatula
Metal spatula or knife

III. Procedures

A. Place all ingredients except vanilla in top of double boiler (don't place over boiling water yet.
B. Beat ½ minute at low speed on electric mixer to blend.
C. Place over boiling water, but not touching water.
D. Cook, beating constantly, till frosting forms stiff peaks, about 7 minutes (do not overcook).
E. Remove from boiling water.
F. Add vanilla.
G. Beat until of spreading consistency, about 2 minutes.
H. Frost cake.
I. Evaluate.

SCORECARD FOR JOB SHEET #7: CAKES WITHOUT FAT (UNSHORTENED CAKES)

	Excellent	Good	Fair	Poor
APPEARANCE:				
Uniform shape, free from holes	4	3	2	1
Large volume, very light in weight in proportion to size	4	3	2	1
TEXTURE:				
Tender crust, free from moist, shiny spots	4	3	2	1
Uniform color, inside characteristic of kind of cake.	4	3	2	1
Small, uniform grain; no large air spaces or compact layer	4	3	2	1
Tender, feathery texture; moist and light, not compact or soggy	4	3	2	1
FLAVOR:				
Pleasing, delicate flavor, characteristic of type of cake	4	3	2	1

Total score (32 for Excellent) ____________________

SCORECARD FOR COOKED FROSTING

	Excellent	Good	Fair	Poor
APPEARANCE:				
Fluffy, attractively swirled, holds peaks well, free of crumbs	4	3	2	1
TEXTURE:				
Smooth, not grainy; firm but not tough or rubbery	4	3	2	1
FLAVOR:				
Mild, sweet taste	4	3	2	1

Total score (12 for Excellent) ____________________

Comments:

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 6: *Others - Pastries, Cakes, Frostings, and Candies

JOB SHEET #8: CAKE WITH OIL (chiffon)

COCONUT CHIFFON CUPCAKES

I. **Ingredients**

1 cup + 2 tbsp sifted cake flour
3/4 cup sugar
1½ tsp baking powder
½ tsp salt
2 tbsp + 2 tsp salad oil
½ cup milk
3/4 tsp vanilla
1 egg, separated
1/2 - 3/4 cup flaked coconut

II. **Equipment**

Sifter
Measuring cups
Measuring spoons
2 medium mixing bowls
Rubber spatula
Metal spatula
Electric mixer
Paper baking liners
Muffin pans

III. **Procedure**

A. Heat oven to 400°F.
B. Sift together flour, ½ cup sugar, baking powder and salt into mixing bowl.
C. Make a well in the dry ingredients.
D. Add salad oil, half the milk, and the vanilla.
E. Blend.
F. Beat 1 minute at medium speed on mixer, scraping bowl.
G. Add remaining milk and egg yolk.
H. Beat one minute.
I. In medium bowl, beat egg white till stiff peaks form.
J. Fold batter very gently into egg whites.
K. Fill paper baking cups ½ full.
L. Top with coconut.
M. Bake at 400° 12-15 minutes. Makes 18.
N. Evaluate.

JUDGE FOR YOURSELF

SCORE CARD FOR JOB SHEET #8: CHIFFON CAKES

	Excellent	Good	Fair	Poor
APPEARANCE:				
Uniform shape, free from holes	4	3	2	1
Large volume, Very light in weight in proportion to size	4	3	2	1
TEXTURE:				
Tender crust, free from moist, shiny spots	4	3	2	1
Uniform color, inside characteristic of kind of cake.	4	3	2	1
Small, uniform grain. No large air spaces or compact layer.	4	3	2	1
Tender, feathery texture. Moist and light, not compact or soggy.	4	3	2	1
FLAVOR:				
Pleasing, delicate flavor, characteristic of type of cake.	4	3	2	1

Total score (32 for Excellent) ____________________

JOB SHEET #9: CRYSTALLINE CANDY - FUDGE

I. Ingredients

2 cups sugar
1 tsp corn syrup
2/3 cup milk
¼ tsp salt
2 oz unsweetened chocolate, cut into pieces
2 tbsp butter or margarine
1 tsp vanilla

II. Equipment

Heavy saucepan
Measuring cups
Measuring spoons
Wooden spoon
Candy thermometer
Cake pan
Metal spatula
Knife

III. Procedure

A. Combine sugar, corn syrup, milk, salt, and chocolate in a large, heavy saucepan.
B. Stir mixture over moderate heat until sugar dissolves.
C. Boil the candy over moderate heat, uncovered, until it reaches 234-240°F on a candy thermometer.
D. Remove candy from heat and add butter or margarine.
E. Cool until lukewarm, about 122°F.
F. Do not stir candy while it is cooling.
G. Add vanilla.
H. Beat candy vigorously until it thickens and begins to lose its gloss.
I. Immediately pour fudge into a buttered pan and mark it into squares.
J. When cooled, cut into pieces (makes about 1 lb).
K. Evaluate.

RATE YOUR FUDGE (JOB SHEET #9)

	Excellent	Good	Fair	Poor
Deep brown color; satiny sheen	4	3	2	1
Creamy, smooth (not grainy)	4	3	2	1
Soft but pieces hold shape well	4	3	2	1
Flavor is rich chocolate; no off taste	4	3	2	1
Total Score (16 is Excellent)	________			

Comments:

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 6: *Others - Pastries, Cakes, Frostings, and Candies

JOB SHEET #10: NONCRYSTALLINE CANDY - PEANUT BRITTLE

I. Ingredients

2 cups sugar
1 cup water
1 cup light corn syrup
½ tsp salt
2 cups raw Spanish peanuts
1 tblsp butter or margarine
1 tsp vanilla
½ tsp baking soda

II. Equipment

Heavy saucepan
Measuring cups
Measuring spoons
Wooden spoon
2 baking sheets

III. Procedure

A. In a large, heavy saucepan, combine sugar, water, and corn syrup.
B. Cook mixture over low heat, stirring constantly, until sugar dissolves.
C. Increase heat to moderate and bring syrup to a full boil.
D. Cook, stirring occasionally, until candy thermometer reaches 234°F.
E. Add peanuts and salt.
F. Cook to 300°F, stirring constantly.
G. Remove from heat.
H. Add butter or margarine, vanilla, and soda.
I. Stir well.
J. Pour brittle onto 2 buttered baking sheets.
K. Lift edges with spatula to partially cool candy and to keep the candy from sticking to the pans.
L. While warm, stretch candy to desired thinness.
M. When cool, break into pieces (Makes about 2 lbs).
N. Evaluate.

RATE YOUR PEANUT BRITTLE (JOB SHEET #10)

	Excellent	Good	Fair	Poor
Golden color	4	3	2	1
Looks foamy or porous	4	3	2	1
Even thickness	4	3	2	1
Crisp texture	4	3	2	1
Flavor is "caramel-like" with peanut taste; no burnt or off taste	4	3	2	1
Total Score (20 Excellent)	________			

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 6: *Others - Pastries, Cakes, Frostings, and Candies

Answers to Job Sheets

Job Sheet #1: Comparison sheet should be fully completed to the satisfaction of the instructor with appropriate observations and conclusions made.

Job Sheet #2: Comparison sheet should be fully completed to the satisfaction of the instructor with appropriate observations and conclusions made

Evaluation sheets are provided for Job Sheets #3-10.

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 6: *Others - Pastries, Cakes, Frostings, and Candies

TEST

Pastry

1. Match the terms on the right to the correct definition.

____ a. One or two crust-pies which are individual servings

____ b. A standing rim around the edge of pie which provides attractiveness and prevents spillage

____ c. Another term for pie crust

____ d. A filled pastry made by folding half of the crust over the other half

____ e. A deep dish fruit pie with thick top crust

____ f. A pastry shell filled with a rich egg and cream custard and various ingredients such as ham, seafood, or vegetables

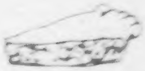
____ g. A puffed pastry, rectangular in shape

____ h. A puffed pastry round in shape

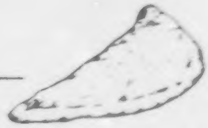
1. Flute
2. Turnovers
3. Tarts
4. Pastry
5. Cream puff
6. Eclair
7. Quiche
8. Cobbler

2. Identify the types of pastry below by placing the number of the correct term in the blank beside each picture.

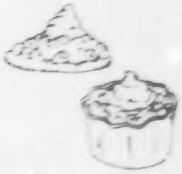
a. ______



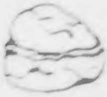
c. ______



b. ______



d. ______



1. 2-crust pie
2. puff pastry
3. turnover
4. tart
5. cobbler

3. Describe the food value of pastries, giving at least three contributions.

4. Select four basic ingredients used in plain pastry dough by placing an "X" to the left of the correct ingredient.

____ a. Baking powder

____ b. Salt

____ c. Milk

____ d. Fat

____ e. Sugar

____ f. Flour

____ g. Water

____ h. Vanilla

5. List types of products available for purchase for each of the following:

	Pastry Crust		Fillings		Toppings
a.	________	a.	________	a.	________
b.	________	b.	________	b.	________
c.	________	c.	________	c.	________

6. List 4 ways to serve pastries.

a.

b.

c.

d.

7. Place numbers beside each step below indicating the order in which the step should be performed to make basic pastry crust. Omit steps which do not belong.

____ a. Flute edges
____ b. Roll out dough
____ c. Sift salt with flour
____ d. Place gently in pan
____ e. Cut fat into flour mixture
____ f. Add water and stir with fork
____ g. Shape dough into firm ball
____ h. Beat in eggs

8. Place a (+) beside statements below which are proper techniques to follow in making pastry.

____ a. A shiny pan is best to use for pastry.

____ b. Cold rather than warm water should be used in mixing the crust.

____ c. Prick marks are used mostly for crusts for cream pies.

____ d. Crust should be rolled to a 1/8" thickness.

____ e. Most pastries should be baked at an oven temperature of 325^{o}F.

____ f. When using lard for crust, slightly less should be used than if using vegetable shortening.

9. Place numbers beside each step below indicating the order in which the step should be performed to make puff pastries. Omit steps which do not belong.

____ a. Sprinkle with powdered sugar
____ b. Melt fat in hot water
____ c. Place dough on baking sheet
____ d. Beat in flour and eggs
____ e. Bake
____ f. Roll out to 1/8" thickness
____ g. Cool
____ h. Flute edges
____ i. Fill

10. Match the poor characteristics of pastry on the right to their causes on the left. The characteristics may be used more than once.

____ a. Too much shortening

____ b. Too much flour when rolled

____ c. Underbaked

____ d. Poor quality shortening

____ e. Not carefully shaped

____ f. Overbaked

____ g. Wrong pan

____ h. Crust stretched when placed in pan

____ i. Too much liquid

____ j. Overhandled

1. Pale, dull color
2. Rancid
3. Compact, doughy
4. Tough, rubbery
5. Raw
6. Burned
7. Too tender, falls apart
8. Uneven edge
9. Smooth, not blistery surface
10. Shrunken

11. List two desirable characteristics for pastry in regard to each of the following.

a. Appearance

1.

2.

b. Tenderness

1.

2.

c. Texture

1.

2.

d. Flavor

1.

2.

12. Place a (+) beside each statement below which is a proper care and storage technique to follow regarding pastries.

____ a. Pastry shells can be kept well for several days.

____ b. Fruit pastries must be served the day they are prepared.

____ c. Cream pastries must be refrigerated.

____ d. Fruit pastries must be refrigerated.

____ e. Most pastries should not be frozen.

Cakes 13. Briefly describe each of the classes of cakes below and give an example of each.

a. Cakes with fat:

Example: ________________

b. Cakes without fat:

Example: ________________

c. Chiffon-type cakes:

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Example: ________________

14. List 5 forms in which cakes can be made.

a.

b.

c.

d.

e.

15. Describe the contribution of cake to the diet.

16. Place a (+) in front of each statement below which is a guideline for preparing cakes.

____a. Exact measuring is necessary for cakes.
____b. It is best if eggs and milk used in cakes are thoroughly chilled when added to batter.
____c. Pans for all cakes should be greased and floured.
____d. Shiny pans are best for cakes.
____e. Cake pans should not touch each other in the oven.
____f. Cakes are usually baked in a hot 400°F oven.
____g. The cake rises most during the first half of the baking period.
____h. Remove cakes with fats from pans immediately after baking so they will not get soggy.
____i. Invert tube cake pans for cooling.

17. Match the mixing method on the right with its description on the left by placing the number in the correct blank.

a.____	Egg whites are beaten with sugar until stiff; flour and other ingredients folded in	1.	Conventional
b.____	A pond or well is made in dry ingredients to which oil and liquids are added; mixed with beaten eggs folded in.	2.	Quick (one-bowl)
c.____	Fat and sugar are creamed until light and fluffy; eggs are beaten into creamed mixture; sifted dry ingredients are added alternately with liquid	3.	Angel method
d.____	Dry ingredients are sifted into mixing bowl; fat and liquid are added and beaten; remaining liquid and eggs are beaten in	4.	Sponge method
e.____	Dry ingredients are beaten into egg yolks; beaten whites are folded in.	5.	Chiffon

18. Describe three characteristics of quality in each of the classes of cakes listed below:

a. Cakes with fat

1.
2.
3.

b. Cakes without fat

1.
2.
3.

c. Chiffon type

1.
2.
3.

19. Place a (+) beside each statement below which is a care and storage technique for cakes:

____ a. Cakes should be refrigerated.

____ b. Cakes may be frozen, either frosted or unfrosted.

____ c. Cooked frostings do not freeze well.

20. Name and briefly describe the two types of frosting.

a.

b.

21. Match the frosting problems below with causes and solutions by drawing lines to connect the appropriate items.

Solution	Problem	Cause
Reheat over a pan of boiling water, stir, remove from heat and stir until proper consistency	Too thin	Stirred too long
		Syrup overcooked
		Syrup undercooked
Add more liquid	Too thick sugar	Not enough powdered
Add more powdered sugar		Too much powdered sugar

22. List the steps in frosting a cake.

a.
b.
c.
d.
e.

Candies

23. Match the terms on the right with the definitions on the left by placing the correct number in the appropriate blank.

____ a. a gray film appearing on on chocolate stored at high temperatures

____ b. a soft, chewy, noncrystalline candy with large proportion of milk

____ c. pulled candy

____ d. powdered sugar

____ e. overfill

____ f. to change sugar to a brown liquid substance

____ g. a candy similar to fudge but made with brown sugar instead of white sugar

____ h. A candy made by pouring a white syrup over egg whites

1. Confectioner's sugar
2. Crystallization
3. Caramelization
4. Supersaturate
5. Crystalline candies
6. Noncrystalline candies
7. Marzipan
8. Penuche
9. Nougat
10. Divinity
11. Taffy
12. Brittle
13. Caramel
14. Ball-in-water test
15. Bloom

24. Describe the contribution of candy to the diet.

25. List the two major kinds of candy and list three examples of each.

a.

1.
2.
3.

b.

1.
2.
3.

26. From the list below place a (+) beside the five major ingredients of candy.

____ a. Flour

____ b. Sugar

____ c. Egg whites

____ d. Shortening

____ e. Baking powder

____ f. Liquid

____ g. Syrups

____ h. Flavorings

27. Place a (+) beside each statement below which is a guideline to follow in making candy.

____ a. Use a heavy saucepan.

____ b. Chill crystalline candy mixtures in the refrigerator to get temperature lowered.

____ c. Stir candies constantly while cooling.

____ d. Never double candy recipes.

28. Place a (+) beside each statement below which is a guideline to follow in caring for and storing candy.

____ a. Candy will keep about 3 months in an airtight container.

____ b. Candy should not be frozen.

____ c. Candy with "bloom" should be discarded.

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 6: *Others - Pastries, Cakes, Frostings, and Candies

TEST KEY

Pastry

1. a. 3
b. 1
c. 4
d. 2
e. 8
f. 7
g. 6
h. 5

2. a. 1
b. 4
c. 3
d. 2

3. High calories
High fat
High carbohydrates

4. b, d, f, g

5. Crust
a. pastry mix
b. pastry stick
c. frozen pastry shell

Filling(any 3)
a. fresh fruit
b. canned fruit
c. prepared filling
d. pudding mixes

Topping
a. prepared whipped topping
b. whipped topping mix

6. a. main dish
b. appetizers
c. desserts
d. snacks

7. a. 7
b. 5
c. 1

d. 6
e. 2
f. 3
g. 4

8. a
b. +
c. +
d. -
e.
f. +

9. a. 7
b. 1
c. 3
d. 2
e. 4
g. 5
i. 6

10. a. 7
b. 9
c. 1, 3, 5
d. 2
e. 8
f. 2, 6
g. 1
h. 10
i. 3, 4
j. 4, 9

11. a. Appearance

    1. Golden brown color
    2. Blistery surface
    3. Uniform attractive edges

b. Tenderness

    1. Cuts easily
    2. Holds shape when served

c. Texture

    1. Flakes layered throughout crust
    2. Crisp eating

d. Flavor

    1. Pleasant, bland flavor to enhance filling
    2. No off flavor

12. a. +
b.

c. +
d.
e.

Cakes

13.

a. Cakes with fat: Contain fat (butter or shortening); fine and tender in texture; vary in flavor

Example: Devil's Food or yellow, white, and chocolate cakes

b. Cakes without fat: Contain no fat; texture is spongelike; eggs act as leavening agent

Example: Sponge or Angel Food

c. Chiffon-type cakes: Contain oil; texture is spongelike; eggs act as leavening agent

Example: Chiffon

14. Any five of the following

a. Layer
b. Loaf
c. Cupcakes
d. Sheet
e. Upside down
f. Bundt
g. Tube
h. Tiered
i. Novelty
j. Jelly roll

15. Supplies mostly calories - other nutrients in small amounts depending on the amount of milk, egg, enriched flour, etc.

16. a. +
b.
c.
d. +
e. +
f.
g. +
h.
i. +

17. a. 3
b. 5
c. 1
d. 2
e. 4

18. Any 3 should be listed

a. Cakes with fat
   1. Velvety and light
   2. Small, fine cell walls
   3. Crusts are thin and evenly browned
   4. Top crust is smooth or slightly pebbly and gently rounded
   5. Flavor is mild and pleasing

b. Cakes without fat

   1. Large volume
   2. Spongy and porous
   3. Thin cell walls
   4. Tender and moist
   5. Pleasing flavor

c. Chiffon-type

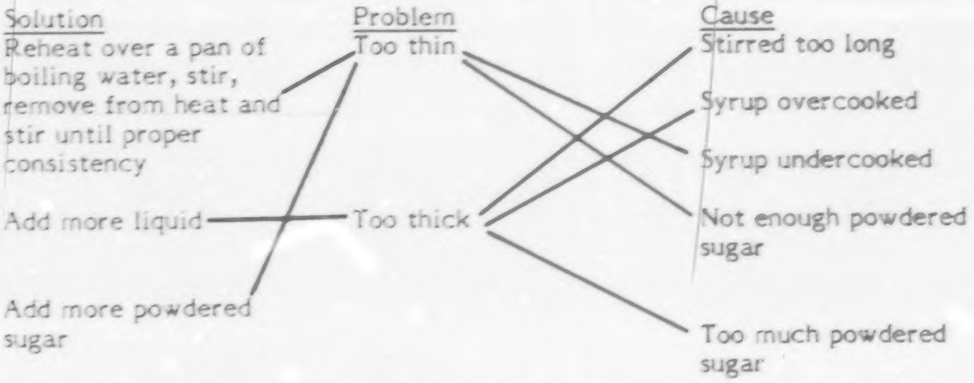
   1. Large volume
   2. Moist and tender
   3. Thin cell walls
   4. Pleasing flavor

19. a.
    b. +
    c. +
    d.

20. a. Uncooked - liquid and powdered sugar are mixed (usually with butter) and beaten until creamy and fluffy

    b. Cooked - syrup is cooked with powdered sugar beaten in until fluffy or egg whites and granulated sugar are heated and beaten until fluffy.

21.


Solution
Reheat over a pan of boiling water, stir, remove from heat and stir until proper consistency
Add more liquid
Add more powdered sugar
Problem
Too thin
Too thick
Cause
Stirred too long
Syrup overcooked
Syrup undercooked
Not enough powdered sugar
Too much powdered sugar

22. a. Cool cake completely
    b. Brush aside crumbs
    c. Frost top of bottom layer

d. Frost sides of cake, sealing crumbs first.
e. Frost the top

Candies

23. a. 15
b. 13
c. 11
d. 1
e. 4
f. 3
g. 8
h. 10

24. Carbohydrates (sugar) only = calories

25. Any 3 examples

a. Crystalline
  1. Fudge
  2. Penuche
  3. Marzipan
  4. Fondant
  5. Divinity

b. Noncrystalline
  1. Caramels
  2. Nougats
  3. Taffy
  4. Brittle
  5. Lollipops

26. a.
b. +
c. +
d.
e.
f. +
g. +
h. +

27. a. +
b.
c.
d. +

28. a. +
b.
c.

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 7: Food Preservation

LESSON OBJECTIVE

After completion of this lesson, the student should be able to preserve fruits and vegetables and make pickles and jelly. The student should also be able to compare costs of commercially and non-commercially preserved products. This knowledge will be evidenced through completion of assignment sheets and lesson test with a minimum of 85 percent accuracy.

SPECIFIC OBJECTIVES

After completion of this lesson, the student should be able to:

1. Match terms associated with food preservation to the correct definitions.
2. Discuss reasons for food preservation.
3. Identify factors to consider when selecting foods to be preserved.
4. List factors to consider when selecting a food preservation method.
5. Identify equipment used in food preservation and its use.
6. Label parts of a water-bath canner and a steam-pressure canner.
7. Match parts of the water-bath and steam-pressure canner to the correct functions.
8. Match common methods of canning to the correct uses.
9. Arrange in order the steps in canning by water-bath and steam-pressure.
10. Sequence the steps in making jelly.
11. Describe the three tests for sealed lids.
12. List characteristics of good storage areas for canned foods and select areas for storing canned foods.
13. Select from a list rules for freezing fruits, vegetables, meats, and prepared foods.
14. State factors to consider in purchasing containers and wrapping materials used in home freezing.
15. Identify proper types of containers and wrapping materials for home freezing.

16. Demonstrate the ability to wrap meat to be frozen.

17. Select rules for storing food in the freezer.

18. Select correct methods of thawing frozen foods.

19. List methods used to prepare frozen foods for serving.

20. List methods for drying foods.

21. Select from a list those factors to consider in packaging and storing dried foods.

22. Describe methods used in preparing dried foods for use.

23. Match types of food spoilage to their characteristics.

24. List ways to avoid food spoilage.

25. Obtain and analyze prices of food preservation equipment.

26. Compare costs of commercially and non-commercially preserved products.

27. Demonstrate the ability to:

    a. Prepare canned fruit.

    b. Prepare canned vegetables.

    c. Prepare pickles.

    d. Prepare jelly.

    e. Freeze fresh fruit.

    f. Freeze fresh vegetables.

    g. Dry fruit.

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 7: Food Preservation

SUGGESTED ACTIVITIES

I. Suggested Activities for Instructor

  A. Provide students with objective sheet.

  B. Provide students with informational and assignment sheets.

  C. Discuss lesson and specific objectives.

  D. Discuss information and assignment sheets.

  E. Adapt material for special needs students.

INSTRUCTIONAL MATERIALS

I. Included in this lesson

  A. Objective sheet

  B. Information sheet

  C. Handouts

    1. HO 1: Preparing Fruits for Freezing

    2. HO 2: Suggested Maximum Home-Storage Periods

    3. HO 3: Preparing Vegetables for Drying

    4. HO 4: Preparing Fruits for Drying

  D. Transparency Master

    1. TM 1: Telltale Signs of Spoilage

  E. Assignment sheets

    1. AS 1: Obtain and Analyze Prices of Food Preservation Equipment

      Part A: Canning Equipment

      Part B: Containers and Wrapping Material Used in Home Freezing

      Part C: Freezer Storage Costs

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2. AS 2: Compare Costs of Commercially and Non-Commercially Preserved Products

   Part A: Canned

   Part B: Frozen

3. AS 3: Select Areas for Storing Canned Foods

4. AS 4: Identify Proper Types of Containers and Wrapping Materials Used in Home Freezing

5. AS 5: Food Preservation Crossword Puzzle (Review)

F. Answers to assignment sheets

G. Job Sheets

1. JS 1: Prepare Canned Fruit (Water Bath Method)

2. JS 2: Prepare Canned Vegetable (Steam-Pressure Method)

3. JS 3: Prepare Pickles (Water Bath)

4. JS 4: Prepare Jelly

5. JS 5: Freeze Fresh Fruit

6. JS 6: Freeze Fresh Vegetables

7. JS 7: Wrap Meat To Be Frozen

8. JS 8: Dry Fruit

H. Test

I. Answers to test

II. References

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B. Blue Book. Muncie, Indiana: Ball Corporation.

C. Consumer Reports. Volume 43, no. 7. Mount Vernon, New York: Consumers Union, 1978.

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F. Food Freezing Facts. Chicago: Morton Salt Co./Division of Morton International, Inc., n.d.

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H. "Home Canning and Freezing Book." Sand Springs, Oklahoma: Kerr Research and Educational Department.

I. Home Canning Tips. Evansville, Indiana: Bernardin, Inc., n.d.

J. How to Make Jellies, Jams, and Preserves at Home. Home and Garden Bulletin Number 56, rev. Washington, D.C.: United States Department of Agriculture, 1977.

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N. Packaging Foods for the Freezer. Chicago: Sears, Roebuck and Co., n.d.

O. "Perfect Jams and Jellies with Certo Fruit Pectin". White Plains, New York: General Foods Corporation, 1977.

P. Shank, D. E. et al. Guide to Modern Meals. 2nd ed. Webster Div./McGraw-Hill Book Co., 1981.

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R. Sowers, M. F. "Pickles and Relishes." C-3304. Stillwater: Oklahoma State University Extension, n.d.

S. "Successful Home Canning". Muncie, Indiana: Ball Corporation/Consumer Service Department.

T. White, R. Food and Your Future. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1979.

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III. Visuals

A. "A Practical Guide to Pressure Canning." (filmstrip) Distributed by: National Presto Industries, Inc.

B. "Yes You Can". (filmstrip; free loan) Distributed by: Modern Talking Pictures, Dallas, Texas.

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 7: Food Preservation

NOTES TO THE INSTRUCTOR

1. Have students visit houseware department of a local store to study and price equipment used in canning to assist in completion of Assignment Sheet #2.

2. Discuss advantages and disadvantages of purchasing used canning equipment at garage sales, borrowing from friends or relatives, or obtaining through newspaper ads.

3. Invite a resource person from the University of Missouri Extension Division to discuss and demonstrate proper food preservation techniques available.

4. Arrange for biology teacher to assist in growing cultures of spoiled foods; have students watch cultures develop and identify what is growing.

5. Based on the amount of equipment, time, and produce available, the teacher should decide whether job sheets 1-9 should be completed as demos, as a class, in lab groups, or at home by the student. Some may be omitted if not feasible.

6. Invite resource person from local gardening center to discuss gardening procedures and costs.

7. Introduce lesson by serving a variety of home-preserved and commercially-preserved produce and have students compare and evaluate quality of each.

8. Arrange for display of containers and wrapping materials (including prices) used in storing frozen foods.

9. Allow students to complete Assignment Sheet #2 as a home experience.

10. Demonstrate and provide opportunity for students to practice sealing with paraffin before sealing jelly. Fill jelly glasses with water leaving 1/2 inch head space. Pour hot paraffin on water so that it forms 1/8 inch seal.

11. Supplement lesson with filmstrips and cassettes available also from Ball Corporation. They can be ordered as a set or individually. Subject titles are:

    a. "Freezing Fruits"

    b. "Freezing Vegetables"

    c. "Canning Green Beans"

    d. "Canning Tomatoes"

    e. "Preparing Dill Pickles"

    f. "Jelly Making"

12. Encourage students to carry out additional canning, freezing, and drying, projects as home experiences.

13. Prepare jelly as a class project to give as gifts to special resource people.

14. Supplement lesson with information from "Kerr Home Canning and Freezing Book." This pamphlet can be ordered from Kerr Glass Manufacturing Corp., Consumer Products Division, Sand Springs, Oklahoma, 74063.

15. Supplement lesson with information from the Ball Corporation. Pamphlets can be ordered for teacher and student use from the Ball Corporation, Consumer Affairs Department WL, P.O. Box 2005, Muncie, Indiana, 47302. Pamphlets available are as follows:

    a. "Ball Blue Book"

    b. "Some Aspects of Food Preservation"

    c. "The Science of Food Preservation"

    d. "Green Bean Snap"

    e. "Tomato Twistin"

    f. "Jam Jamboree"

    g. "Ball Home Canning Basics"

h. "Ready Reference Chart"

i. "Summer's Saucy Spreads"

j. "Gourmet Jams and Jellies"

k. "Ball Freezer Book"

16. Before students complete Job Sheet #4 on jelly, the instructor should consider types and forms of fruits which would be most available and economical to use. The instructor may want to limit the recipes from which the students may choose.

17. The instructor may want to give short quizzes throughout the lesson.

    Example: A short quiz on canning, freezing, making jelly, etc.

18. If time permits, the instructor may have some groups make uncooked jellies and jams and some cooked jellies and jams, then compare preparation time, flavor, color, texture, and keeping time.

19. The instructor may wish to demonstrate varieties of jelly to the class.

20. If possible, the instructor might have a display and tasting lab of various types of jelly such as conserves, marmalade, etc., including those made from less common fruits and fruit combinations.

21. The instructor may prefer to have Assignment Sheet #2, "Compare Costs of Commercially and Non-Commercially Canned Products" completed as a group.

Of Course You Can!

Directions: Place large jar of vegetables or fruit made of construction paper in center of bulletin board. Have students print canning rules on large pieces of paper and place at sides.

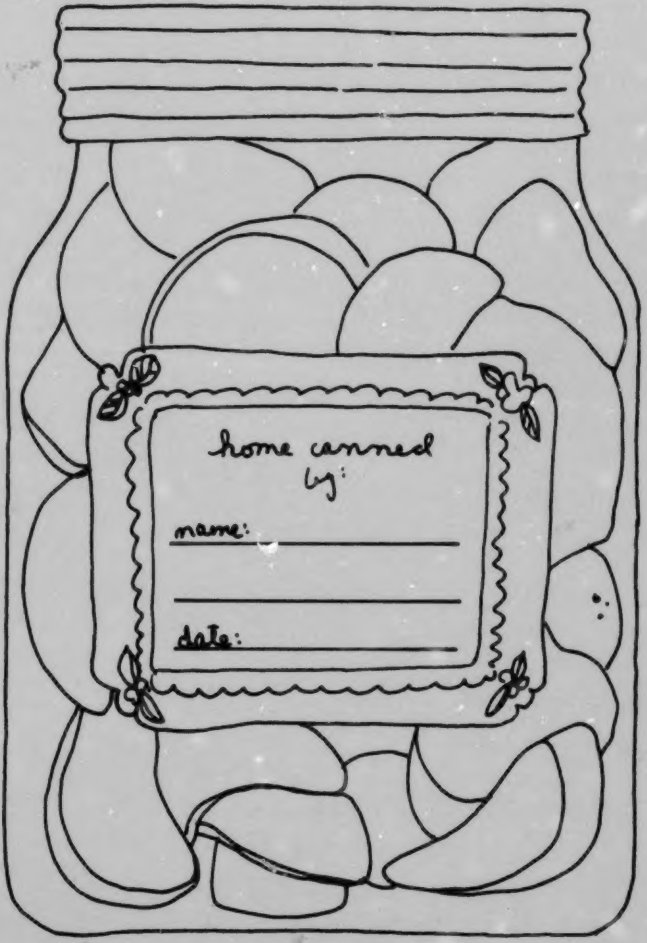
Use standard jars

Process for the correct length of time

Select quality produce

Wipe jar with clean cloth before closing

Remove air bubbles with spatula



Make sure lid is sealed

Pack produce tightly in jar

Process at the correct pressure

Use proper canning method

Wash jars and lids thoroughly

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 7: Food Preservation

INFORMATION SHEETS

I. Terms and definitions

Canning

A. **Canning** - Process of preserving food by using heat to destroy harmful micro-organisms by sealing the food in containers.

B. **Sterilization** - Process of destroying bacteria, enzymes, yeasts, molds, and other substances that might cause food to spoil

C. **Low-acid food** - Vegetables, meats, and other foods not falling into acid food group that must be processed in a steam-pressure canner

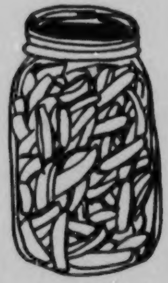
D. **High-acid food** - Rhubarb, sauerkraut, tomatoes and other citrus fruits, and any pickled product that may be processed in a water-bath canner

E. **Pack** - Manner in which food is placed into the jar

F. **Cold pack** - Method of preparing food for canning by filling the jar with raw food and liquid, and then processing it.

G. **Hot pack** - Method of preparing food for canning by filling jars with hot food and liquid, and then processing it

H. **Head space** - Space left at the top of jar when filling or packing the jar with food



I. **Sealing** - Making the jar air tight

J. **Food spoilage** - Growth of bacteria, mold, or yeast in canned foods, usually due to some failure in processing

(CAUTION: Never taste non-commercially canned meats or vegetables until they have been boiled; meats and corn for 20 minutes and other non-acid vegetables for 10 minutes. Never taste food that you suspect is spoiled or that has an offensive or sour odor.)

K. **Spore** - Highly resistant, dormant form of bacteria

L. **Pickling** - Method of preserving food with vinegar and spices

Jelly Making

M. **Pectin** - Substance found in fruits that thickens or jells when heated and combined with fruit acid and sugar

Note: Commercial pectins are available for use with fruit juices low in pectin.

N. **Jelly** - Fruit product made by cooking proper amounts of fruit juice, sugar, and pectin until desired consistency is reached

O. **Paraffin seal** - Fast, easy sealing method, using paraffin wax, which involves no special canning equipment.

P. **Jam** - Fruit product made by cooking proper amounts of unstrained fruit juice, sugar, and pectin until desired consistency is reached

Q. **Marmalade** - A tender jelly containing small pieces of fruit; often made from citrus fruit and may contain a mixture of fruits.

R. **Preserves** - whole fruits or large pieces of fruit in a thick syrup, slightly jellied

S. **Conserves** - jams made from a mixture of fruits usually including citrus fruits and sometimes raisins and nuts; conserves are thicker with fruit than are marmalades and the fruit is in larger pieces

Freezing and Drying

T. **Freezing** - Method of preserving food at a temperature of 0° F or below

U. **Blanching** - Boiling food in water for a few minutes and then dipping in cold water to prevent spoilage

V. **Syrup blanching** - Boiling fruits in sugar-water solution

W. **Steam blanching** - Process in which vegetables or fruits are placed in colander or other container and placed in a kettle with small amount of boiling water

X. **Freezer burn** - Drying out of foods caused by exposure to very dry, cold air

Y. **Proper packaging** - Moisture-proof or vapor-proof container or wrapping material used for freezing food

Z. **Head space** - Empty space left at top of the jar or container in which food is packed for freezing

AA. **Cubic foot** - Measurement describing the volume of a cube one foot high, one foot wide, and one foot deep

BB. **Moisture-proof/vapor-proof** - Characteristics necessary for freezer containers and wrapping materials in order to keep moisture and flavor in while keeping air and odors out

CC. **Drying** - Process of removing moisture from food so that micro-organisms will not grow

DD. **Sulfuring** - Pretreating fruits with flowers of sulfur or sublimed sulfur before drying

NOTE: The outdoor process involves burning appropriate amounts of sulfur near fruit.

EE. **Dehydration** - Removal of liquid from food by natural or artificial means

II. Reasons for food preservation

A. Prevent produce from spoiling

NOTE: Unlike canning, freezing does not kill the organisms that cause spoilage, it merely stops their growth temporarily.)

B. Gain self-satisfaction

C. Obtain desired flavor and in freezing, to retain fresh color, flavor, and nutrients

D. Carry on traditions established by others

E. Have access to foods during off season

F. Save time in meal preparation

NOTE: Canned meats and vegetables take less time to prepare for serving than raw meats and vegetables. Entire meals can be frozen, then defrosted and heated for serving.

G. Save money

III. Factors to consider when selecting foods to be preserved

A. Select foods that are at their peak in quality and flavor.

NOTE: Canning, freezing and drying will not improve the quality of food, but will preserve it.

B. Select fruit that is fully ripened, but still firm.

NOTE: Unripened fruit is not as sweet as fully ripened fruit because the flavor has not yet developed.

C. Select small fruits that are not overripe, bruised, or sour.

NOTE: Soft or overripe fruits that are not soured can be used when making butters or jams. Fruits and vegetables of uniform size are best.

D. Select vegetables that are young, tender, and freshly gathered.

NOTE: Canning and freezing should take place as soon as possible after gathering to help hold good flavor as well as to prevent the growth of bacteria. The recommendation "two hours from garden to jar" is a good one to follow.

E. Select meat from a healthy animal that has been chilled quickly after killing.

F. Select the proper quantity of raw produce according to the number of containers needed and amount of produce needed to fill each container.

IV. Factors to consider when selecting food preservation method (AS 1 and 2)

A. Equipment needed - Do you have canner, freezer?

B. Time required - Canning and drying take longer than freezing.

C. Amount of food - Canning may be less efficient for a small amount of food than freezing.

D. Desired food flavor, color and texture - Some people prefer canned green beans to frozen, etc.

E. Required preparation of food for serving - Canned foods may require no cooking, frozen require thawing, etc.

F. Costs and availability of containers, lids, wrap, etc.

Possible Food Preservation Costs

Canning:
Jars, lids
Processing equipment - pressure canner, etc.
Cool, dry place for storage
Utility cost

Freezing:
Freezing containers and wrap (moisture, vapor proof)
Freezer purchase and upkeep
Electricity

Drying:
- Dehydrator
- Electricity
- Containers

Gardening (or purchase price of produce):
- Land rent
- Seeds and plants
- Tiller rental or purchase
- Fertilizer
- Soil test prorated
- Pesticides
- Equipment - hoe, rake, sprayer, etc.
- Straw or other mulch
- Auto trips to purchase above
- Labor

G. Space available - Dried foods usually require the least amount of space for storage.

H. Keeping quality - Canned foods usually keep longer than frozen foods.

NOTE: If you are considering canning or freezing your produce, keep in mind all initial investment for jars and processing equipment. If you choose to freeze your food, include the cost of the freezer, and total production and preservation costs. Canning and freezing equipment should be viewed as a long-range investment to be amortized over a period of years. Therefore, think through how committed you are to continuing home production and home preservation.

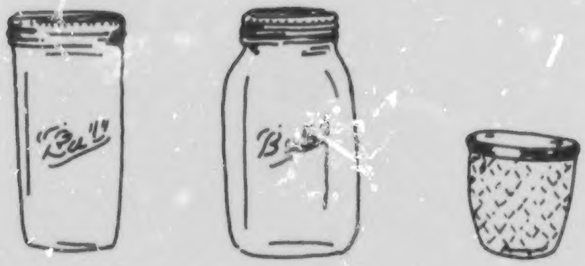
V. Equipment used in food preservation and its use

A. Jars - Store and process canned foods

Examples: Wide mouth, regular, and jelly

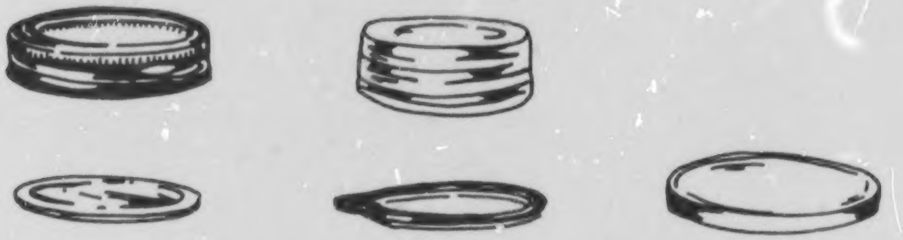
NOTE: Wide mouthed jars are commonly used for large fruits or other foods.

CAUTION: Only standard canning jars, lids, and bands should be used when canning to insure proper lid sealing.



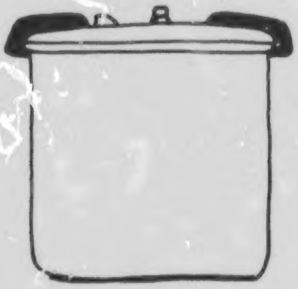
B. Lids - seal processed jars of canned foods

Examples: Two-piece metal lid, one-piece metal lid with porcelain lining, jelly lid

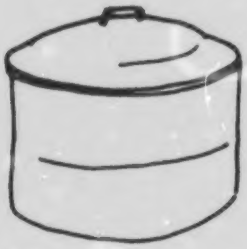


NOTE: When using jelly lids, it is necessary to seal the jelly with paraffin before putting on the lid; however this method of canning is not recommended.

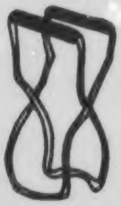
C. Steam pressure canner - Processes canned foods under pressure at such a high degree of heat (240°F) that bacterial spores, which cause flat-sour, botulism, and other types of spoilage, are destroyed



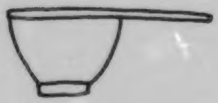
D. Water-bath canner - Processes canned foods in boiling water at such a high degree of heat (212°F) that bacteria, enzymes, molds, and yeasts, which cause spoilage in acid foods, are destroyed



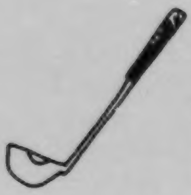
E. Jar lifter - Grips hot jars when removing from hot-water bath or steam-pressure canner



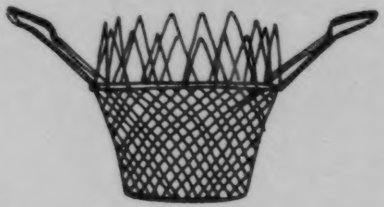
F. Funnel - Helps prevent spilling when placed in jar while filling



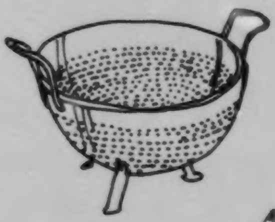
G. Ladle (with a lip) - Spoons foods into containers



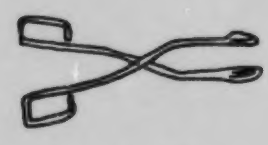
H. Wire basket - Holds vegetables or fruits as they are dipped into boiling water to remove skins or to blanch



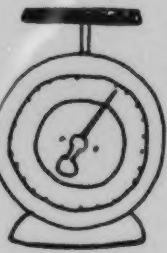
I. Colander - Drains liquid from foods; also useful for washing or rinsing produce



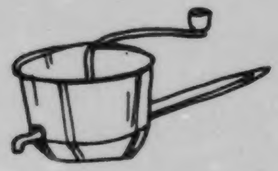
J. Tongs - Grip foods and lids when removing from or placing in hot water



K. Household scale - Measures amounts of produce by weight



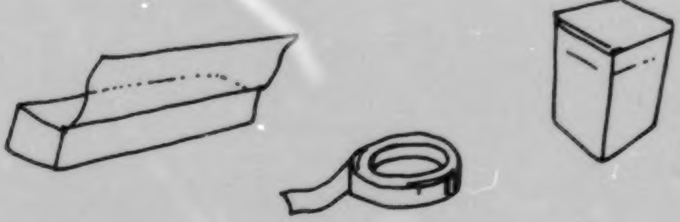
L. Food mill - Purees vegetables and fruits



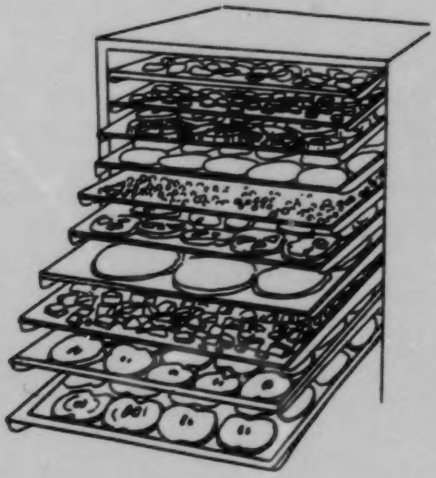
NOTE: Other equipment may be substituted for this.

M. Timer - Accurately measures processing time

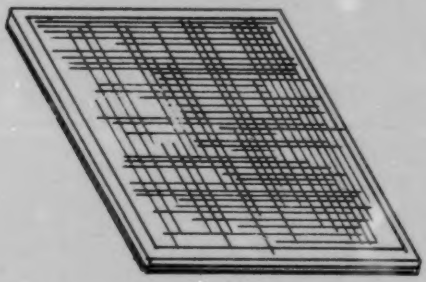
N. Freezer wrap and containers - Moisture proofing for freezer storage



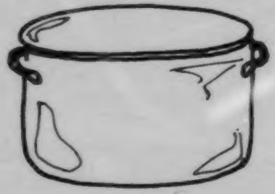
O. Food dehydrator - Specialized equipment which may be purchased for drying foods



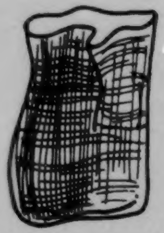
P. Drying tray with screen bottom



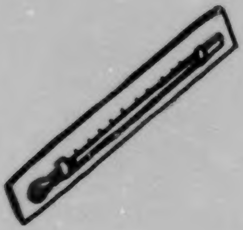
Q. Large pot or kettle for jelly-making to allow a full boil without boiling over



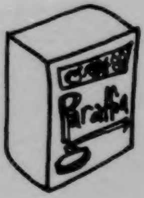
R. Jelly bag made of several layers of closely woven cheesecloth or of firm, unbleached muslin; used to extract juice from fruit



S. Jelly or candy thermometer to aid in making jelly without added pectin (cook to 220° F)

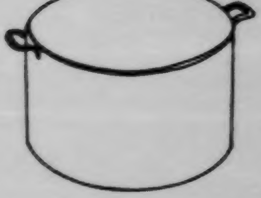


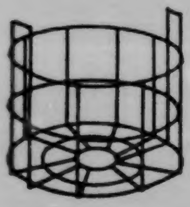
T. Paraffin wax for a paraffin seal on jelly and jelly products

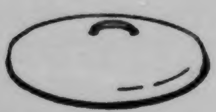


VI. Parts of a water-bath canner and a steam-pressure canner

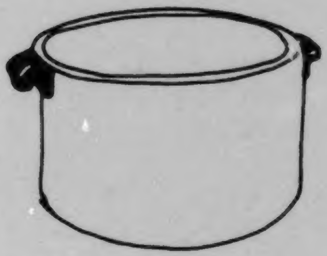
A. Water-bath canner

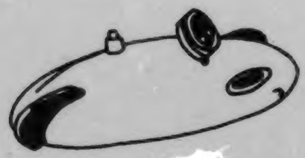


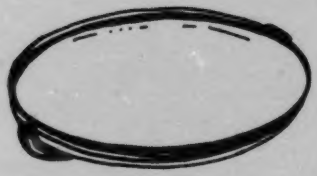


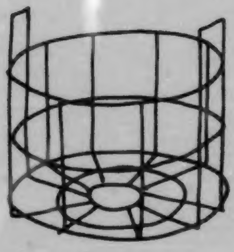


B. Steam-pressure canner









VII. Functions of parts of the water-bath and steam-pressure canners

A. Kettle - Holds canned food, rack, and water during processing

B. Side handle - Provides for easy and safe moving of hot, full canner

C. Rack - Holds jars off bottom of kettle to prevent overheating during processing

D. Cover - Prevents heat from leaving kettle

E. Cover grip - Locks cover in place to prevent it from being lifted by steam during processing

F. Safety plug - Replaceable plug that melts or is blown out of canner lid if pressure or temperature becomes too high

G. Pressure gauge - Measures pressure in steam-pressure canner

CAUTION: Dial must be checked before and during canning season if canner is used often; this insures that required processing temperature will be reached. County extension home economists provide this service.

H. Combination steam valve and petcock - Controls pressure by allowing air/steam to be released from canner

I. Gasket - Replaceable rubber seal in cover rim that prevents air/steam leakage

VIII. Recommended uses of common canning methods

A. Water bath - Fruits, pickles, relishes, and other high-acid foods

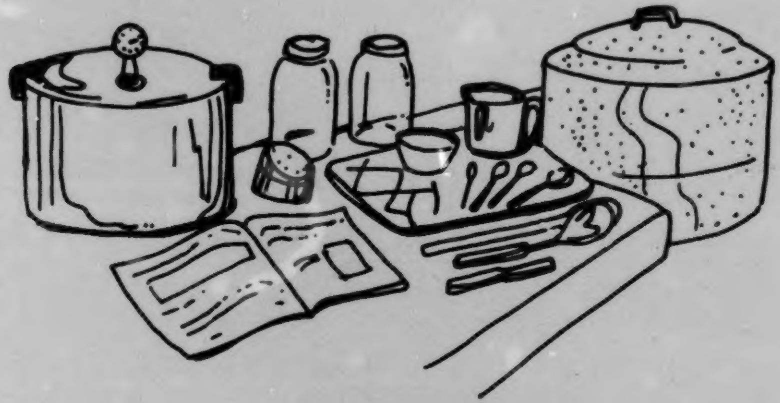
B. Steam pressure - Beans, beets, corn, meats, and other low-acid foods

C. Open kettle - In making jelly, only when paraffin is used as a seal

IX. Steps in canning by water bath and steam pressure (JS 1, 2, and 3)

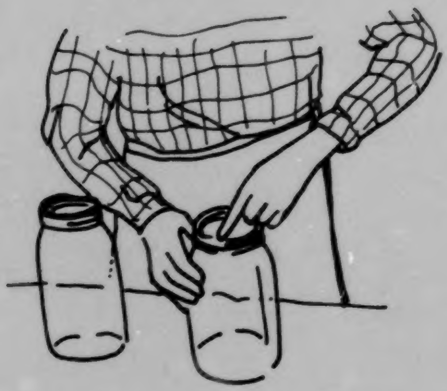
A. Assemble all equipment

Examples: Pressure canner for vegetables and meats; boiling water bath for fruits, tomatoes, jellies, preserves, pickles and relishes; jars and caps, jar lifter, funnel, measuring equipment and timer



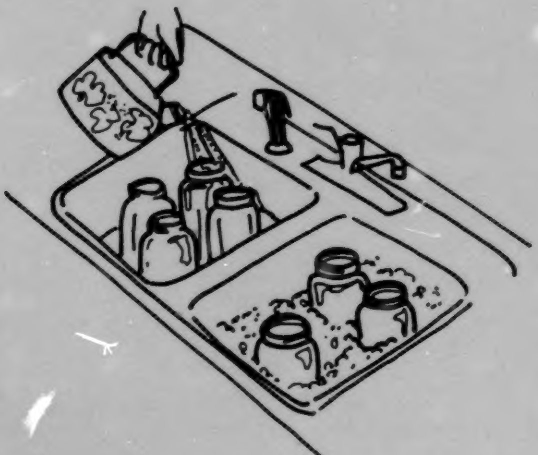
B. Examine tops of jars.

NOTE: There should not be any nicks, cracks, or sharp edges on the jars.



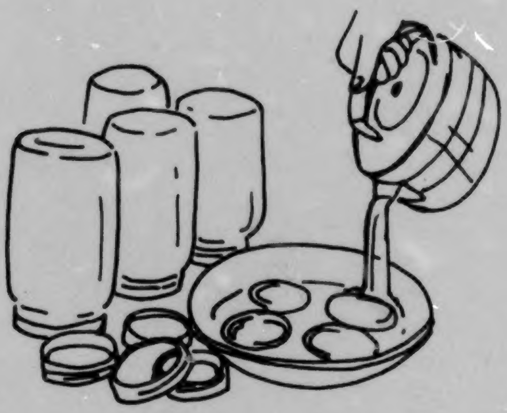
C. Wash jars well in hot soapy water.

D. Rinse jars thoroughly.



C. Wash jars well in hot soapy water.

D. Rinse jars thoroughly.



E. Place lids in pan and pour boiling water over them.

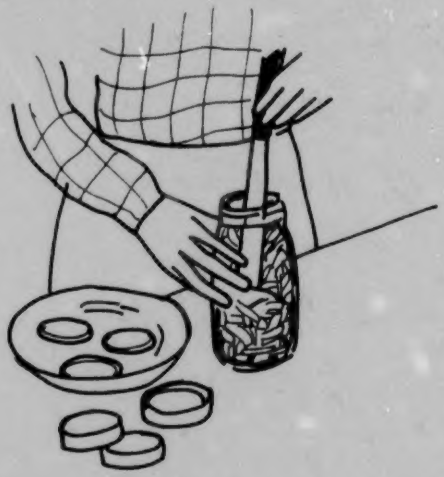
NOTE: Lids should not boil, but should stay in water until ready to use.

F. Pack food in jars using either raw pack or hot pack method.

NOTE: Corn, peas, lima beans and meats are packed to within 1 inch from top of jar. All other foods are packed to within 1/2 inch of top of jar.

G. Add boiling liquid according to recipe. Tomatoes require no extra liquid.

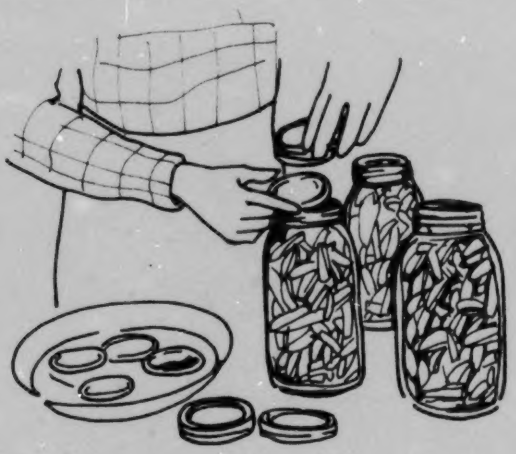
H. Remove air bubbles from jar with spatula.



I. Wipe top of jar with clean, damp cloth.

J. Place prepared lid on jar with sealing compound next to glass.

NOTE: Be sure to screw band firmly until tight.



K. Process in boiling water bath or pressure canner.

1. Pressure canner

   a. Put 2-3 inches of boiling water in the bottom of the canner (follow manufacturer's directions for your canner)

   b. Set filled jars on rack in canner so steam can flow around each one..

   c. Fasten lid so no steam can escape except through petcock

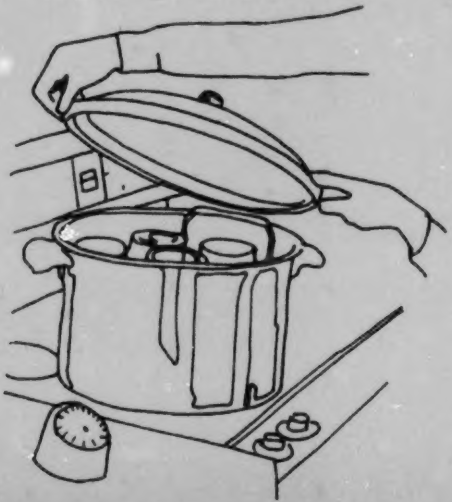
   d. When steam pours steadily from petcock for at least 10 minutes, close petcock or gauge

   e. Let pressure rise until desired pressure has been reached; start timing processing time and keep heat constant

   f. When processing time is up, turn off heat immediately

   g. Let pressure drop to zero, slowly open petcock or remove weighted gauge, and remove lid, tilting it away from your face

   h. Take jars from canner



2. Boiling-water bath

   a. Heat water in canner until it is hot, for raw-pack jars; heat water in canner to boiling for hot-pack jars.

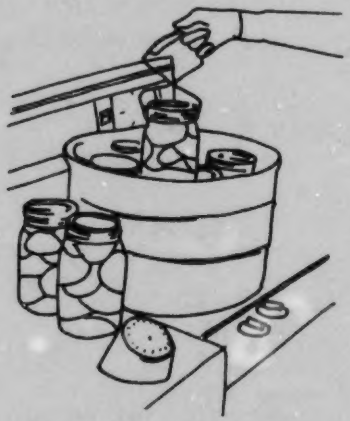
   b. Set filled cans on rack in canner so water surrounds each one.

   c. Water should be 1-2 inches over tops of jars (add more boiling water if necessary).

   d. Cover canner.

   e. Start processing timer when water comes to a rolling boil, and boil gently and steadily for the recommended time.

   f. When processing time is up, remove jars from canner.



   g. Place jars on rack or folded cloth to cool.

      NOTE: Allow space between jars for air circulation. Do not set hot jars in a draft or cover them. Do not tighten screw bands.

   h. Test for sealed lids when jars are completely cooled.

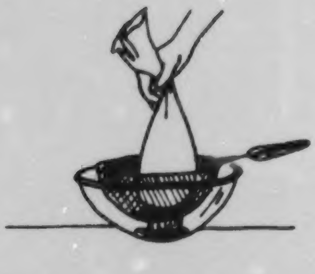
   i. Wash filled jars in warm, soapy water; rinse and dry.

   j. Store filled jars in a cool, dry place.

X. Steps in jelly making (open kettle canning) (JS 4)

A. The first step in making jelly is to extract the juice from the fruit. First wash the fruit thoroughly, remove stems, and cut large fruits into smaller pieces. Cook the fruit in water (amount stated in your recipe) until it is soft. Place the cooked fruit into a thin cloth bag (muslin), or line a sieve with a thin cloth; let the juice drip into the bowl.

NOTE: Squeezing the bag will produce more juice but the jelly won't be as clear.



B. Wash glasses in warm, soapy water. Rinse them in hot water. Then sterilize them by placing them in boiling water for 10 minutes. Keep them in hot water until they are used. This prevents the jars from breaking when hot jelly is poured into them.

C. Measure all ingredients* into a large kettle. Stir well.

1. Fruit juice, which provides flavor and color

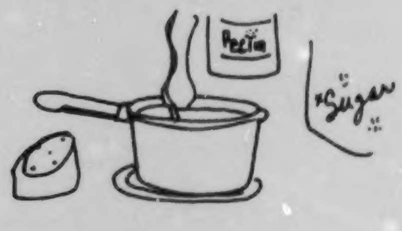
2. Pectin is needed to make the fruit juices jell. Unripe fruits have more pectin than mature fruits. If fruit is low in pectin, commercial pectin, in powdered or liquid form can be used.

   *Powdered pectin, if used, is added at this time; liquid pectin, if used, is added after the sugar and juice mixture has boiled. Always follow directions with the pectin and do not interchange types.

3. Acid in fruits works along with the pectin to make the juice jell. Lemon juice or citric acid is added when fruits are low in acid.

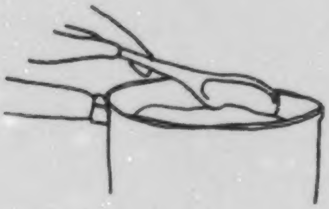
4. Sugar helps the jelly become firm, adds flavor and helps preserve the jelly.

D. Cook at a rolling boil, usually for one minute (for accuracy use a thermometer. A jell will form when the sugar and juice are cooked to 220° F to 222° F).

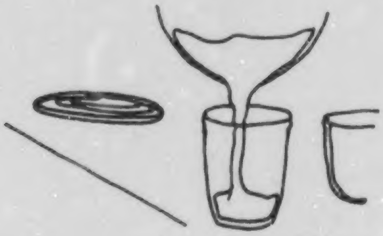


NOTE: Other jellied products made in similar fashion include marmalade, jam, preserves and conserves. Uncooked jam (freezer jam) is similar but requires no cooking of the fruit.

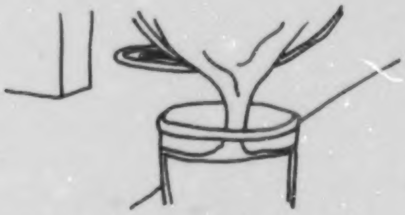
E. When the jelly is cooked, remove from heat and remove any scum formed with a metal spoon so that your jelly will remain clear.



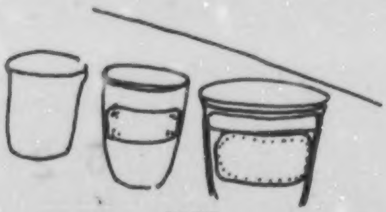
F. Pour the hot jelly into sterile glasses to within one-fourth inch of the top.



G. Immediately cover the jelly with melted paraffin, which will make a tight seal as it cools. Add the paraffin gently to make a one-fourth inch layer on the jelly surface. (Jars may be sealed as in other canning methods without paraffin.)



H. After the jelly has cooled, wipe the glass to remove any jelly on the surface which would attract mold. Cover the glass with a clean lid or foil, and label it. Store the jelly in a cool dry place.



XI. Three tests for sealed lids

A. Hear the seal - As the lid snaps down while the jar is cooling, it will make a popping sound.

B. See the seal - If the lid is curved down, the jar is sealed.

C. Feel the seal - If the center of the lid will not move when pressed downward, the jar is sealed.

XII. Characteristics of good storage areas for canned goods (AS 3)

A. Cool

NOTE: Temperature should be below 70°F but not freezing. Warm storage temperatures may cause early discoloration, flavor changes, and nutrient loss.

B. Dry

NOTE: High humidity can corrode the lids making them difficult to open.

C. Dark

NOTE: Storing canned foods in light may cause foods to lose nutrients and flavor quickly.

XIII. Rules for freezing

A. Fruits (HO 1) (JS 5)

1. Carefully sort and wash fruit. Drain fruit well.

2. Do not soak.

3. Depending upon the fruit, pit, trim, leave whole or slice.

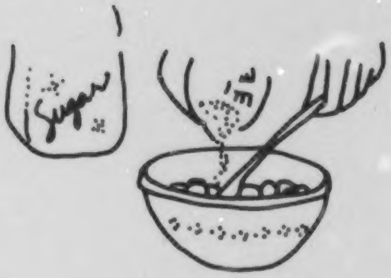
4. Prevent fruits from darkening before and after freezing by dropping them into a solution of 3 tablespoons of lemon juice to 1 gallon of water before packing or use a commercial ascorbic acid mixture (following product dirctions).

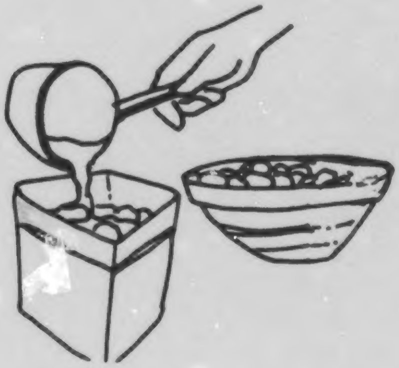
5. Pack following one of the following methods.

a. Dry (unsweetened) pack - place prepared fruit in freezer container leaving 1 inch head space, wipe container with clean, damp cloth, tightly seal and label.

b. Sugar pack (Frozen, sweetened fruits usually have better color and texture than unsweetened fruits) - place prepared fruit in a shallow pan, add sugar and turn fruit gently until the sugar dissolves and forms a syrup. Carefully pack fruit into containers, leaving 1" head space. Wipe top, then seal and label.

c. Syrup pack - prepare syrup according to recipe directions and chill (a 40 percent syrup is recommended for most fruits; a lighter syrup may be used for mildly flavored fruits). Place prepared fruit directly into container. Pour chilled syrup over fruit (If needed, dissolved ascorbic acid is added to the syrup). Allow 1" head space, wipe top of container and label.





FREEZING FRUITS

FRUITS	PREPARATION	TYPE OF PACK
Apples	Peel, core, slice. Put in solution to prevent darkening. Drain and blanch 2 minutes in boiling water or slice directly into chilled syrup.	40% syrup
Apricots	Wash, cut in halves, pit.	40 or 50% syrup
Berries, except Strawberries	Wash, drain well.	30 or 40% syrup, or in dry sugar, or pack without sugar
Cherries, Sour	Wash, drain and pit. Cut in halves.	50 or 60% syrup or dry sugar
Cherries, Sweet	Wash, drain, pit or leave whole.	30 or 40% syrup
Cranberries	Wash, drain.	50 or 60% syrup, or in dry sugar, or pack without sugar
Figs	Wash, remove stems, leave whole	30 or 40% syrup
Peaches Nectarines	Wash, peel, pit, cut in sections or slices. Put in solution to prevent darkening.	30 or 40% syrup, or dry sugar with ascorbic acid
Pineapple	Slice then peel. Remove eyes then core. Dice or leave in slices.	40 or 50% syrup
Plums and Prunes	Wash, halve and pit.	40 or 50% syrup or dry sugar
Rhubarb	Wash, trim, cut in 1 inch pieces.	50 or 60% syrup
Strawberries	Wash, hull, slice or leave whole.	40 or 50% syrup or dry sugar
Tomatoes	Wash, core and peel. Cut into pieces or freeze whole.	--Without liquid
Tomatoes, Stewed (Cook 5-10 min. With liquid)	Plain or add peppers, celery, onion.	--Without liquid

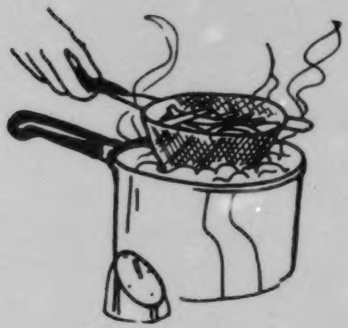
B. Vegetables (JS 6)

1. Wash vegetables thoroughly in cold water and sort according to size.

2. Remove stems and husks; cut in pieces as necessary.

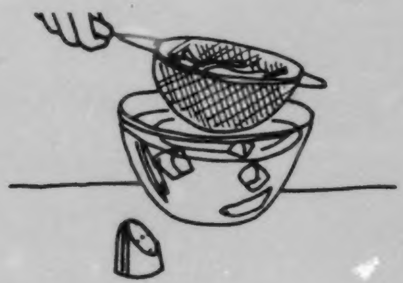
3. Blanch most vegetables in boiling water or steam to inactivate enzymes.

    a. To blanch in boiling water, place vegetables in large strainer or basket, lower into boiling water, time according to recipe directions.

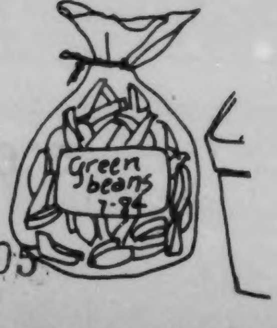


    b. To steam blanch vegetables, bring 1-2 inches of water to boil in a large kettle with lid, put vegetables in a single layer in a basket above water, cover, time according to directions (will take about 1 1/2 times as long as boiling-water blanching).

4. Cool quickly and thoroughly by plunging into very cold water or ice water and drain.



5. Pack vegetables closely in containers without adding any liquid, label and freeze.



BLANCHING TIME FOR VEGETABLES

VEGETABLES	PREPARATION	MINUTES IN BOILING WATER
Asparagus	Cut into 3/4 to 1 in. lengths.	Small, 2 min. Medium, 3 min. Large, 4 min.
Beans		
Lima	None required. Shell after boiling.	4 min. in pod, then shell
Snap, Green or Wax	Snip and cut into desired length.	3 min.
Beets	Cook with 1/2 in. tops, then cool. Cut and skin.	Small, 30 min. Medium, 45 min. (Cook until tender.)
Broccoli	Soak in salt water for 30 min. Cut into pieces 1 1/2 in. across.	3 min.
Brussels sprouts	Soak in salt water for 30 min. before blanching.	Small, 3 min. Medium, 4 min. Large, 5 min.
Carrots	Scrape, small whole or cut 1/4 in. slices.	Small pieces, 2 min. Large pieces, 3 min. Whole, 5 min.
Cauliflower	Soak in salt water for 30 min. Break into florets before blanching.	3 min.
Corn		
on the cob	Husk, desilk, wash and sort ears for size. Cut off ends.	Small, 7 min. Medium, 9 min. Large, 11 min.
cut	Blanch and cool on ear, cool before cutting.	4 min.
Greens	All kinds. Trimmed.	2 min.
Mushrooms	Cut off stems. Whole or slices stand in scalding water and ascorbic acid for time indicated. 1 1/4 tsp. ascorbic acid for 1 gal. water.	Small, 2 min. Large, 4 min. Slices, 2 min.

Okra	Cut off stems. Whole or slices. Slice after blanching.	Small, 2 min. Large, 3 min.
Parsnips	Peel and cut into 1/2 in. cubes or slices.	2 min.
Peas	Shell before blanching.	1 1/2 min.
Peppers	Remove seeds, slice or dice.	None required.
Squash		
Summer, Zucchini	Cut into 1/2 in. slices.	2 to 3 min.
Winter, Pumpkin	Cut into pieces.	Cook until soft, cool.
Sweet Potatoes	Cut into pieces.	Cook until tender, cool and skin.

C. Meats, poultry, fish

1. Package in appropriate serving amounts (individual pieces might be separated with waxed paper).

2. Examine poultry for feathers, wash in cold water and dry thoroughly; may be frozen whole or in pieces.

3. Game fish must be scaled, eviscerated and should have head and tail removed before freezing; all fish should be washed in cold water and dryed before freezing.

4. Meat, fish and poultry should not be frozen in store wrapper but rewrapped in moisture proof paper or container.

5. Seal and label; freeze promptly.

D. Prepared foods

1. Wrap all prepared foods in their container with paper freezer wrap; label.

2. Use foods within the recommended period for the food.

3. It is not recommended to freeze: lettuce and salad greens, custards, gelatin products, meringues, sour cream, and sandwiches containing salad dressing or mayonnaise and hard cooked egg white.

XIV. Factors to consider in purchasing containers or wrapping materials used in home freezing (AS 4)

A. Food to be frozen

NOTE: Size, shape, and weight of food will affect purchase.

B. Durability of container or wrapping material to prevent chemical changes caused by exposure to air or physical changes caused by loss of moisture

NOTE: Heavy foods, such as turkey, or foods with sharp places, such as fish, will require containers or wrapping material that will not puncture or tear easily.

C. Space available for storing frozen food

NOTE: Flexible containers take up less space than rigid containers and can conform to fit space.

D. Cost of containers and wrapping materials

E. Reusability of packaging materials

F. Design of containers and wrapping materials

NOTE: Containers should be easy to fill, stack in the freezer with no lost space, and should permit easy removal of food.

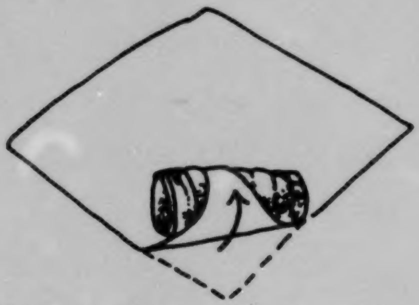
XV. Types of containers and wrapping materials used in home freezing

Type of Containers or Wraps	Examples	Recommended Uses	Some Foods Which Can be Stored
Rigid containers	Glass canning jars Freezer jars Plastic freezer boxes Waxed boxes	Used in packaging most foods but are recommended for all foods that are soft or fluid at room temperature	Fruits packed in syrup or sugar, butter, stews, creamed foods, meats with gravy
Flexible containers	Plastic bags Boil-in- bag Zip-Lock bags	Used in packing meat and other products with irregular shapes as well as vegetables and fruits packaged without syrup or added sugar	Birds, fish, grapes, raspberries, blueberries, eggs that have been frozen in and removed from ice trays
Wrapping materials	Plastic wrap Foil wrap Plastic-coated paper wrap	Used in packaging meat that is freshly processed or to repackage purchased meat	Chicken pieces, hamburger, fish pieces, pork chops

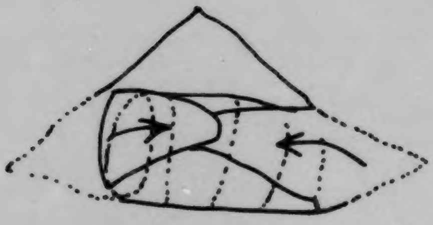
XVI. Proper freezer wrap procedures (JS 7)

A. Steps in butcher wrap

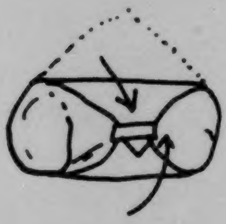
1. Place food diagonally close to one corner of wrap and fold the corner of paper over the food.



2. Fold opposite sides of the paper toward the middle so that the paper overlaps.



3. Continue rolling the food with the paper to the opposite side and secure end of paper with freezer tape.



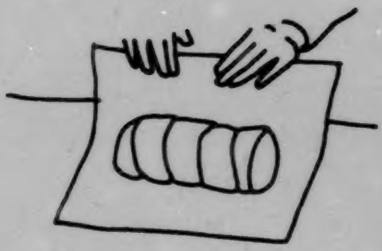
4. Label package with name of item and date.

5. Place item in freezer.

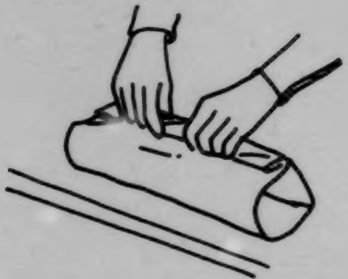
6. Put away all supplies and clean up work area.

B. Steps in drugstore wrap

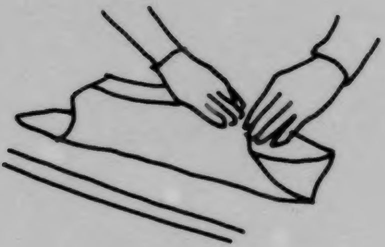
1. Place food in center of paper; bring opposite edges of paper together.



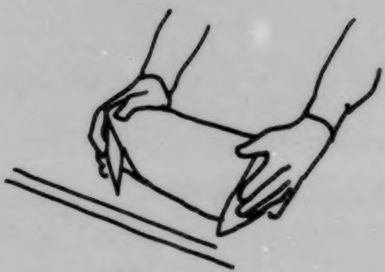
2. Fold down paper in a series of small folds until the paper is in direct contact with the food.



3. Fold the ends to make points, pressing the paper close to the food.



4. Turn the folded ends against the package and seal with locker tape.



5. Label package with name of item and the date.

6. Place in freezer.

7. Put away all supplies and clean up work area.

XVII. Rules for storing food in the freezer (HO 2)

A. Label and date all foods to be stored in freezer.

B. Use frozen foods within recommended storage time.

C. Store like foods together.

D. Place most recently frozen foods at bottom or back of freezer.

NOTE: Move foods that have been in the freezer storage longer toward the top or front.

E. Replace foods used from the freezer with others for economical use of freezer space.

F. Keep a record of frozen foods that are in storage; update as foods are put in or taken out.

XVIII. Correct methods of thawing frozen food

A. Defrost frozen foods in refrigerator if time allows.

B. Use defrost cycle of microwave oven.

CAUTION: Follow manufacturer's instructions for defrosting individual food items.

C. Thaw fruits in the refrigerator, microwave, or at room temperature only until they can be removed from container or sufficiently thawed to serve.

NOTE: Thawing in hot water or over-defrosting in the microwave can cause these foods to soften and become mushy.

D. Thaw meats by placing container under cold running water.

E. Cook some foods unthawed when possible.

Examples: Frozen corn kernels, ham, roast

F. Thaw baked goods in the microwave, or at room temperature, depending on the type of container.

Examples: Cakes, breads

G. Thaw prepared food in the refrigerator or microwave.

Examples: Main dish casserole

NOTE: Foods frozen in breakable glass containers will require enough thawing that they can be placed in a preheated oven without breaking.

XIX. Methods used to prepare frozen foods for serving

A. Thaw and serve

1. Fruits (peaches, strawberries, etc.)

2. Desserts (cookies, cakes, etc.)

B. Cook and serve

1. Meats and casseroles in nonbreakable containers need not be thawed before cooking.

2. To retain vitamin content and prevent spoilage, most vegetables should be cooked without thawing. Exceptions are corn on the cob and leafy vegetables which would not cook evenly.

3. Vegetables that have been blanched should be cooked for a short time in a small amount of boiling water.

C. Thaw, cook, and serve

1. Casseroles in breakable containers

2. Corn on the cob

3. Leafy vegetables

D. Serve directly from freezer

1. Ice cream

2. Frozen desserts

XX. Drying methods (JS 8)

A. Sun drying (least costly but relies on weather)

1. Prepare fruits and vegetables. (HO 3 and 4)

a. Select young, tender vegetables in prime condition and fruits at optimum maturity.

b. Wash vegetables and drain; trim and cut into small pieces.

c. Wash, sort and discard bruised, overripe fruit; peel and core if necessary.

(Small fruits may be dried whole, larger fruits will dry more evenly and quickly if cut into halves, quarters or slices 1/4" thick.)

d. Vegetables must be blanched before drying and light-colored fruits must be sulfured or treated with a salt solution to prevent darkening.

NOTE: To sulfur fruits, prepare a solution using 3 tablespoons sodium metabisulfite per 1 gallon water. Soak for 15 minutes, drain, spread to dry. A salt solution is made by dissolving 3-6 tablespoons salt in 1 gallon of water.

2. Spread food in a single layer on a tray made with a screen bottom.
3. Cover with a piece of cheesecloth and place in the direct sunlight.
4. Occasionally stir food to ensure even drying.
5. Bring trays indoors at night when the air becomes damp and cool.
6. Foods should be dried sufficiently after several days.

B. Oven drying (conventional)

1. Prepare fruits and vegetables (same as for sun drying)
2. Spread food evenly in a single layer on a tray with a screen bottom small enough to go in your oven (you also can stretch cheesecloth around oven racks and secure with pins).
3. Preheat oven to 150° F or as low as oven thermostat will allow.
4. Place lower oven rack about 3 inches from oven bottom. If more than one tray is dried at a time, rotate trays periodically.
5. Stir food occasionally.
6. Cool thoroughly when drying is complete - vegetables will feel dry and brittle, fruits will feel leathery but pliable.

NOTE: For drying foods in the microwave oven, consult your manufacturer's booklet.

C. Commercial drying

Examples: Solar heaters, dehydrators (consult manufacturer's instructions)

XXI. Factors to consider in packaging and storing dried foods

A. Cool dried foods before packaging.

B. Pack food as tightly as possible, without crushing, into dry, insect-proof containers.

Examples: Freezer cartons or bags, glass jars, boxes with fitted lids

C. Seal containers to protect from insects and to prevent reabsorption of moisture by foods.

NOTE: This can be accomplished by sealing joining area of box or jar with a plastic pressure-sensitive tape.

D. Package in small amounts.

NOTE: Dried foods are best if used within a short time after opening.

E. Store in cool, dark, dry place.

XXII. Methods used in preparing dried foods for use

A. Cover fruits and vegetables with cold water and soak to add moisture (rehydrate).

NOTE: Length of time to soak depends on the degree of tenderness desired. Fruits and vegetables may be allowed to soak up to six hours.

B. Cook in water until tender.

NOTE: Additional water may need to be added as it is absorbed into food.

C. Add flavorings such as salt, pepper, bacon drippings, and salt pork to vegetables as they cook.

XXIII. Types of food spoilage and their characteristics (TM 1)

A. Fermentation - Caused by yeast organism reacting with underprocessed fruit juices to produce bubbles of carbon dioxide; has an ethyl alcohol or beer-like smell

B. Flat sour - Caused by presence of spore-forming bacteria that develops in tomatoes, beans, peas, corn, pumpkin, and greens; develops very sour, unpleasant odor and usually appears very cloudy

C. Putrefaction - Caused by presence of spore-forming bacteria that develop in underprocessed meats and vegetables; has a very foul odor that gets stronger with heating; food feels soft and slimy; gas bubbles are present

D. Botulism - Caused by clostridium botulinum, a spore-forming bacteria commonly found in dirt which affects low acid vegetables and meats; may have a rancid or rotten odor that is made stronger by heating; gas may be present; food may feel slimy, liquid may be discolored; a very serious form of food poisoning

E. Mold - Caused by lack of cleanliness and underprocessing of fruits, jellies, vegetables, breads, and meat; appears as a fuzzy, grayish, or white growth on surface; may have a musty odor, or feel slimy

F. Freezer burn - Drying out of foods due to exposure to cold, dry air, causing loss of nutrients, and color and texture changes

XXIV. Ways to avoid spoilage in home preserved food

A. Observe strict sanitation practices. Use a clean cloth to wipe the containers before sealing; wash and rinse lids and containers before processing.

NOTE: Lids and jars are sterilized during processing in the canners.

B. Follow directions carefully. This not only includes equipment use, but also directions written for individual food processing.

C. Work quickly. Bacteria grow quickly in open containers and foods should not be allowed to set before processing is complete.

D. Follow processing time accurately.

E. Use recommended containers and wraps which are sealed properly.

F. When freezing, place prepared foods immediately in freezer with space between items until solidly frozen.

G. Keep freezer at 0° F at all times for frozen foods.

H. Do not thaw and refreeze foods.

I. Use all foods within recommended period of time.

(Use AS 5 as review)

HO 1

PREPARING FRUITS FOR FREEZING

FRUIT	HOW TO PACK	FRUIT	HOW TO PACK
Apples	Scald in boiling water 2 min. Cool in cold water. Pack in 5 to 1 sugar. For better quality, apple slices need to be treated to prevent darkening. Pack with or without sugar.	**Peaches**	Peaches in halves and slices have better quality when packed in syrup or with sugar. Use a 40 percent syrup.* Keep under liquid to prevent darkening. Use ascorbic acid, ½ tsp. per qt. syrup.
Apricots	Slice directly into containers partly filled with 50 percent syrup. Add ascorbic acid, 1 tsp. per quart of syrup.	**Pineapple**	Pack in 30 to 40 percent syrup.* A 4 to 1 sugar pack can be used. Texture and flavor are best with syrup, but fruit can be packed unsweetened.
Berry fruits Blackberries Boysenberries Loganberries Youngberries	The syrup pack is preferred for berries to be served uncooked. The sugar pack or the unsweetened pack is satisfactory for berries to be used for cooked products such as pie or jam. Pack in 50 percent syrup.*	**Plums**	Mix sugar and fruit before packing or cover with syrup (40 to 60 percent preferred).*
Blueberries	The syrup pack is preferred for berries to be served uncooked. Use 40 percent syrup.* Berries frozen unsweetened are satisfactory for cooking.	**Raspberries** red, purple black	Pack in 3 to 1 sugar pack or in 40 to 50 percent syrup.* Whole berries are preferred to crushed fruit.
Cherries (sour or sweet)	Cherries should be prepared quickly to avoid color and flavor changes. Red varieties are best for freezing. Use a 3 to 1 sugar pack for pies or 60 percent syrup* for sauce. Use a syrup for sweet cherries and put in air-tight container. Use ascorbic acid, ½ tsp. per qt. syrup.	**Rhubarb**	Cut into pieces and package. Or, if preferred, heat rhubarb in boiling water for 1 min. and cool promptly in cold water.
Cranberries	Pack whole with 50 percent syrup* or without syrup or sugar.	**Strawberries**	Sugar and syrup-packed frozen strawberries have a brighter color and better texture than berries packed without sweetening. Pack sliced fruit in 4 to 1 sugar. Mix sugar and fruit until sugar is dissolved before packing. Pack whole berries in 50 percent syrup.*
Melons Watermelon Honeydew Cantaloupe	Cut melons into slices, cubes, or balls. Pack into containers and cover with cold 30 percent syrup.*	**Tomato juice**	Pour into containers, leaving head space. Seal and freeze.

* *For a 30 percent syrup, combine 2¼ c sugar with 1 qt. water.*
For a 40 percent syrup, combine 3¼ c sugar with 1 qt. water.
For a 50 percent syrup, combine 5 c sugar with 1 qt. water.
For a 60 percent syrup, combine 7½ c sugar with 1 qt. water.

HO 2

SUGGESTED MAXIMUM HOME-STORAGE PERIODS TO MAINTAIN GOOD QUALITY IN COMMERCIALLY FROZEN FOODS

FOOD	APPROXIMATE HOLDING PERIOD AT 0° F (MONTHS)	FOOD	APPROXIMATE HOLDING PERIOD AT 0° F (MONTHS)	FOOD	APPROXIMATE HOLDING PERIOD AT 0° F (MONTHS)
Fruits and vegetables		Pies (unbaked)		Cooked chicken and turkey	
		Apple	8	Chicken or turkey dinners	
Fruits		Boysenberry	8	(sliced meat and gravy)	6
Cherries	12	Cherry	8	Chicken or turkey pies	12
Peaches	12	Peach	8	Fried chicken	4
Raspberries	12			Fried chicken dinners	4
Strawberries	12	**Meat**			
Fruit juice concentrates				**Fish**	
Apple	12	Beef			
Grape	12	Hamburger or chopped		Fillets	
Orange	12	(thin) steaks	3	Cod, flounder, haddock	
Vegetables		Roasts	12	halibut, pollack	6
Asparagus	8	Steaks	12	Mullet, ocean perch,	
Beans	8	Lamb		sea trout, striped bass	3
Cauliflower	8	Patties (ground)	3	Pacific Ocean perch	2
Corn	8	Roasts	12	Salmon steaks	2
Peas	8	Pork, cured	2	Sea trout, dressed	3
Spinach	8	Pork, fresh		Striped bass, dressed	3
Frozen Desserts		Chops	4	Whiting, drawn	4
		Roasts	8		
Ice cream	1	Sausage	2	**Shellfish**	
Sherbet	1	Veal			
		Cutlets, chops	4	Clams, shucked	3
Baked goods		Roasts	8	Crabmeat	
		Cooked meat		Dungeness	3
Bread and yeast rolls		Meat dinners	3	King	10
White bread	3	Meat pie	3	Oysters, shucked	4
Cinnamon rolls	2	Swiss steak	3	Shrimp	12
Plain rolls	3				
Cakes		**Poultry**		**Cooked fish and shellfish**	
Angel	2				
Chiffon	2	Chicken		Fish with cheese sauce	3
Chocolate layer	4	Cut-up	9	Fish with lemon butter sauce	3
Fruit	12	Livers	3	Fried fish dinner	3
Pound	6	Whole	12	Fried fish sticks, scallops,	
Yellow	6	Duck, whole	6	or shrimp	3
Danish pastry	3	Goose, whole	6	Shrimp creole	3
Doughnuts		Turkey		Tuna Pie	3
Cake type	3	Cut-up	6		
Yeast	3	Whole	12		

PREPARING VEGETABLES FOR DRYING

VEGETABLES	PREPARATION FOR DRYING	DRYNESS TEST AND APPROX. TIME IN OVEN OR DEHYDRATOR
Beans		
green lima	Shell. Steam 15 to 20 min. or until tender but firm.	Shatter when hit with a hammer, 3 to 5 hrs.
snap	Trim and slice lengthwise or cut in 1 inch pieces. Steam 2 to 2½ min. or blanch 2 min. Spread about ½ inch deep on trays.	Brittle, dark green to brownish, 3 to 6 hrs.
Beets	Trim off all but 1 inch of tops and roots. Steam whole from 30 to 60 min. depending on size or until cooked through. Cool and Peel. Cut in ¼ inch cubes or slice 1/8 inch thick. Spread not more than ¼ inch deep on trays.	Brittle, dark red, 3 to 5 hrs.
Cabbage	Remove outer leaves. Quarter and core. Cut into strips 1/8 inch thick. Steam 3 to 3½ min. or blanch 3½ min.	Dry, 1 to 3 hrs.
Carrots and Parsnips	Scrape or peel. Slice crosswise 1/8 inch thick or dice in ¼ inch cubes or shred. Steam 3 to 3½ min. or blanch 3½ min. Spread not more than ½ inch deep on trays.	Very brittle, deep orange, 3½ to 5 hrs.
Celery	Trim and wash stalks. Slice 1/8 to 1/4 inch thick. Steam or blanch 2 min.	Dry, 3 to 4 hrs.
Corn	Select tender, mature sweet corn. Husk. Steam on the cob 2 to 2½ min. or blanch 1½ min. Cut from cob.	Dry, brittle, 2 to 3 hrs.
Mushrooms	Peel the larger mushrooms. Dry whole or sliced, depending on size. No precooking necessary. If stems are tender, slice for drying; if tough, discard. Spread not more than ½ inch deep on trays.	Leathery to brittle, 3 to 5 hrs.
Onions	Select mature onions. Remove outer, discolored layers. Slice about ¼ inch thick. No further treatment necessary. Indoor drying may be undesirable because of odor.	Brittle, light colored, 3 to 6 hrs.
Parsley and other Herbs	No precooking is necessary. Hang bunches of whole plant in dry warm place to dry. When dry, crush leaves and remove stems. Store in tightly closed container.	Brittle.
Peas, green	Steam shelled peas 3 min. or blanch 2 min. Stir frequently during the first few hours of drying.	Shatter when hit with a hammer, 3 hrs.
Peppers and Pimientos	Cut in ½ inch strips or rings. Remove seeds. Spread rings 2 layers deep - strips not more than ½ inch deep.	Pliable, 2½ to 5 hrs.
Potatoes	Wash, peel and cut into strips ¼ inch thick or slices 1/8 inch thick. Steam 6 to 8 min. or blanch 5 to 6 min.	Leathery, 4 to 5 hrs.
Pumpkins and Squash	Quarter, remove seeds and pith, cut in 1 inch strips and peel. Slice strips crosswise, ¼ inch thick. Steam 2½ to 3 min. or blanch 1 min.	Leathery, 4 to 5 hrs.

Use this chart as a guide when drying vegetables.

PREPARING FRUITS FOR DRYING

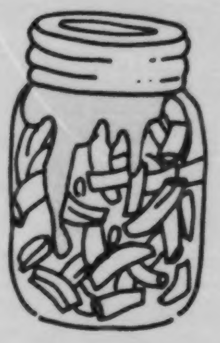
FRUITS	PREPARATION FOR DRYING	DRYNESS TEST AND APPROX. TIME IN OVEN OR DEHYDRATOR
Apples	Pare, core and cut in 1/8 to 1/4 inch slices or rings. Dip in salt or sodium metabisulfite solution. Spread not more than 1/2 inch deep on trays - overlap rings.	Pliable, springy feel, creamy white, 6 hrs.
Apricots	Peel if desired. Cut in halves, remove pits. Dip in salt or sodium metabisulfite solution, or precook. Dry pit side up.	Pliable and leathery, 6 to 14 hrs.
Berries	No pretreatment. Leave whole, except strawberries. Cut them in half.	No visible moisture when crushed, 4 hrs.
Cherries	Remove stems and pits. If juicy, drain about 1 hour.	Leathery but sticky, 6 hrs.
Grapes	Leave whole, remove stems. Dip in boiling water to crack skins.	Pliable, dark brown, 8 hrs.
Peaches	Same as apricots	Pliable and leathery, 15 hrs.
Prunes	Cut in halves and remove pits or leave whole. Halves need no pretreatment. Whole: to soften and crack skins and to help fruit dry better, hold in steam or boiling water for 2 min.	Pliable and leathery, 6 to 14 hrs.

Some fruits dry more quickly than others. Use this chart to estimate drying times.

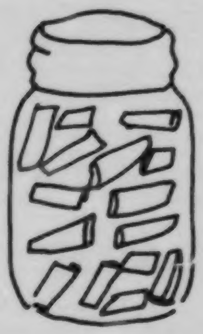
TM 1

Telltale Signs of Spoilage

Before opening a jar of home-canned food, look for...

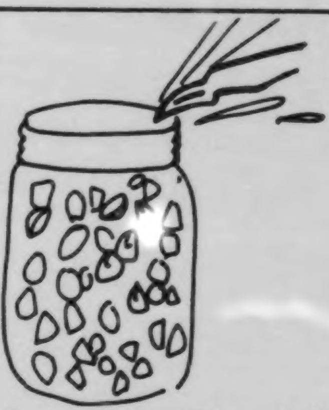


Leakage

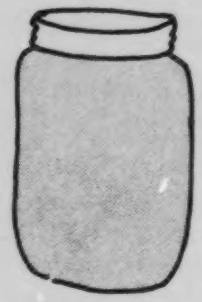


Bulging or Loose Lid

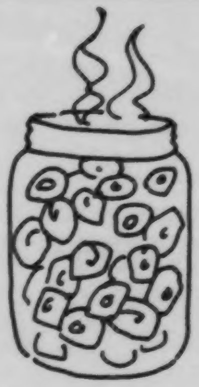
After opening a jar of home-canned food, look for...



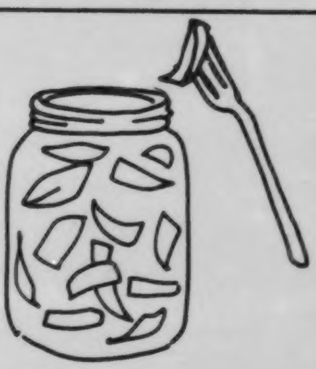
Spurting Liquid



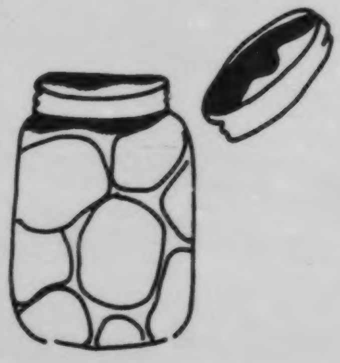
Cloudy



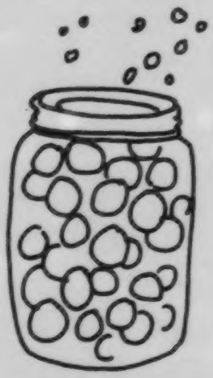
Strange Odor



Mushy Food



Mold



Fermentation

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 7: Food Preservation

ASSIGNMENT SHEET #1: OBTAIN AND ANALYZE PRICES OF FOOD PRESERVATION EQUIPMENT.

Part A - Canning Equipment

Directions: Use catalogs or visit stores in your area to obtain prices for the following canning equipment.

Equipment	Price Per Box or Pkg.	No. in Pkg.	Unit Price	Reusable (check)
Wide mouth quart canning jars				
Lids for wide mouth quart jars				
Bands for wide mouth quart jars				
Steam-pressure canner or Water-bath canner				
Jar lifter				
Wire basket				

If you were canning twelve quarts of produce and had to purchase all the equipment listed above, what would your total cost be? (Assume you grew the produce.)

Water Bath Method: ____________________

Steam Pressure Method: ____________________

Conclusions:

Lesson 7: Food Preservation

ASSIGNMENT SHEET #1: OBTAIN AND ANALYZE PRICES OF FOOD PRESERVATION EQUIPMENT

Part B - Containers and Wrapping Material Used in Home Freezing

Directions: Below is a list of containers and wrapping materials used to store foods for freezing. Using available information and local resources (catalogs, department store or grocery store), complete the following chart. Add additional containers or wrapping materials to the list as they are available.

Available for purchase	Price per box or package	Number of items or square feet in package	Unit price	Reusable (Check)
Glass jars				
Plastic freezer jars				
Waxed boxes				
Boil-in-bag pouches				
Plastic bags (with ties)				
Ziplock bags				
Plastic wrap				
Foil wrap				
Plastic-coated paper wrap				
Plastic freezer boxes				

Conclusions:

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 7: Food Preservation

ASSIGNMENT SHEET #1: OBTAIN AND ANALYZE PRICES OF FOOD PRESERVATION EQUIPMENT

Optional Part C - Freezer Storage Costs

Directions: Use the chart below to compare costs of appliances available for purchase.

FREEZER TYPE	FEATURES (trays, adjustable shelves, door storage); energy efficiency rating	CAPACITY (cubic feet of freezer storage)	PRICE OF APPLIANCE	COST PER CUBIC FOOT OF FREEZER STORAGE
Chest				
Upright				
Side-by-side refrigerator/freezer				
Rented Locker Plant Space				

Conclusions: ______________________________

____

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 7: Food Preservation

ASSIGNMENT SHEET #2: COMPARE COSTS OF COMMERCIALLY AND NON-COMMERCIALLY PRESERVED PRODUCTS

Directions: Assuming that you do not have to purchase any equipment, containers, or lids complete the chart below to compare the costs of purchasing commercially prepared and non-commercially served products. Then answer the questions following each chart.

Part A - Canned

Food	**Approximate amount of produce and staples needed per quart jar**	**Cost per quart (64 oz 1 qt) to purchase commercially canned products at the grocery store**	**Cost per quart to can (with purchased produce)**	**Cost per quart to can (using homegrown produce)**
eaches	2-3 lbs peaches 1 cup sugar 2 cups water or fruit juice			
Green beans	1½ to 2 lbs green beans 1 tsp salt (opt.)			
Kosher Dill pickles	5 cups medium-sized cucumbers ½ small onion 1 clove of garlic 4 tsp salt ½ tsp dried hot peppers ¾ cup white vinegar			
Grape jelly	1 qt bottled grape juice 3¼ cups sugar ½ bottle or one pouch liquid pectin			

ASSIGNMENT SHEET #2 CONT'D: COMPARE COSTS OF COMMERCIALLY AND NON-COMMERCIALLY CANNED PRODUCTS

Part A, continued

1. Would it be more economical to purchase or can the following produce? Check the appropriate column.

Product	**Purchase Commercially Canned**	**Can with Purchased Produce**	**Can with Homegrown Produce**
Peaches			
Green beans			
Kosher Dill pickles			
Grape jelly			

2. Considering costs of produce, containers, equipment, fuel expenses as well as time used, would you choose to can or purchase these products next time?

____

Why? ____________________________________

____

____

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 7: Food Preservation

ASSIGNMENT SHEET #2: COMPARE COSTS OF COMMERCIALLY AND NON-COMMERCIALLY PRESERVED PRODUCTS

Part B - Frozen

Directions: Assuming that you do not have to purchase freezer storage or freezer containers, complete the chart below to compare the costs of purchasing commercially prepared and home-prepared frozen products. Select and compare prices of two additional products of your choice.

Frozen strawberries	Approximate amount of strawberries and staples needed for 1½ pints 1 cup sugar 1 quart strawberries	Cost per 1½ pints (48 oz.=1½ pints) to purchase commercially frozen strawberries Cost: ____________	Cost per 1½ pints to freeze with purchased strawberries Cost: ____________	Cost per 1½ pints to freeze with homegrown strawberries Cost: ____________
Frozen corn (off the cob)	Approximate amount of corn on the cob needed for 1 pint 4 ears of corn	Cost per 1 pint (32 oz. 1 pint) to purchase commercially frozen corn Cost: ____________	Cost per 1 pint to freeze with purchased corn Cost: ____________	Cost per 1 pint to freeze with homegrown Cost: ____________
Other ____________	____________ ____________ ____________ ____________	Cost: ____________	Cost: ____________	Cost: ____________
Other ____________	____________ ____________ ____________ ____________	Cost: ____________	Cost: ____________	Cost: ____________

ASSIGNMENT SHEET #2 (Cont'd)

Part B, continued

1. Would it be more economical to purchase frozen products or freeze the following produce yourself? Check the appropriate column.

Product	Cost per qt. to Purchase Commercially Frozen	Cost per qt. to Freeze with Purchased Produce	Homegrown Produce
Strawberries			
Corn			
Other			
Other			

2. Considering costs of produce and containers, storage costs, and time used, would you choose to freeze or purchase these products frozen next time?

____

Why? ____

____

____

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 7: Food Preservation

ASSIGNMENT SHEET #3: SELECT AREAS FOR STORING CANNED FOODS

Directions: Use the information sheet, class discussion, and resource material to complete the following assignment. Place an "X" in front of those areas best suited for storing canned goods.

Canning foods can be a very rewarding experience. However, if the canned foods are not stored properly all the work will be wasted. Improper storage can result in ruined products.

_____ 1. Under kitchen sink

_____ 2. In cellar

_____ 3. In basement

_____ 4. In garage on open shelf

_____ 5. In an unheated metal building in backyard

_____ 6. Near kitchen window on open shelf

_____ 7. In kitchen on shelves in pantry

_____ 8. In bathroom

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 7: Food Preservation

ASSIGNMENT SHEET #4: IDENTIFY PROPER TYPES OF CONTAINERS AND WRAPPING MATERIALS USED IN HOME FREEZING

Directions: Use the information provided and class discussion to classify the packaging material according to the food to be frozen. Place "RC" for rigid container, "FC" for flexible container, and "WM" for wrapping material in the correct blanks at the left of each food listed. On the right side of the food list examples of each type of material with the approximate cost of each based on information found in AS 1B. Circle the least expensive choice for each food.

_____ 1. 1 lb. hamburger _____________________

_____ 2. 1 qt. green beans _____________________

_____ 3. 1 qt. peaches packed in sugar _____________________

_____ 4. 1 lb. catfish _____________________

_____ 5. 1 qt. apricots packed in syrup _____________________

_____ 6. 1/2 doz. eggs (after they have been frozen in ice trays) _____________________

_____ 7. 1 lb. turkey _____________________

_____ 8. 4 ears of corn on the cob _____________________

_____ 9. 1 lb. chicken legs _____________________

_____ 10 1 qt. of stew _____________________

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 7: Food Preservation

ASSIGNMENT SHEET #5: FOOD PRESERVATION CROSSWORD PUZZLE REVIEW

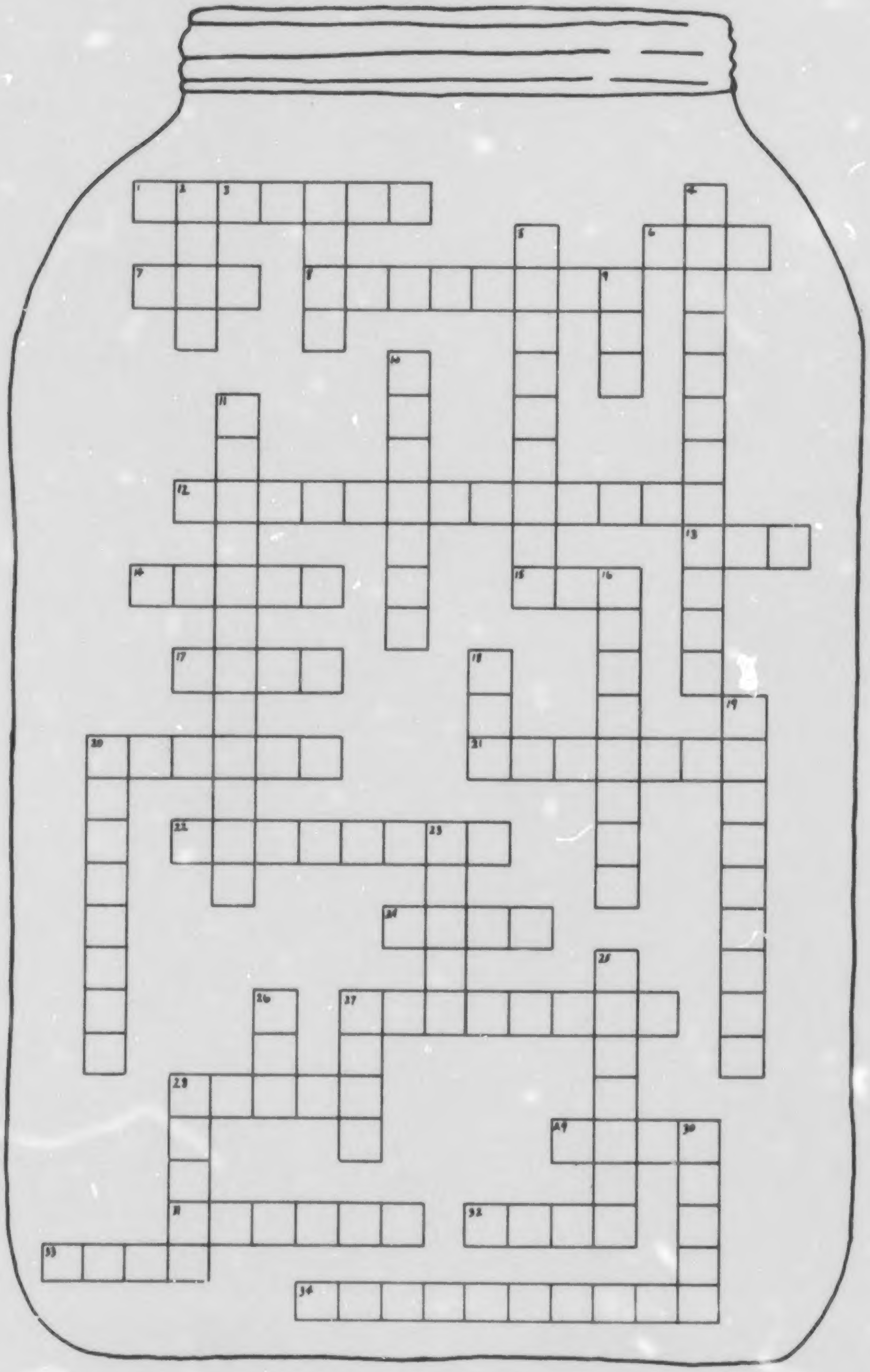
Across

1. Before storing, all preserved food should be ______ with name and date
6. Piece of equipment used to store canned foods
7. Seals canned foods
8. Jars used for canning should be ______
12. Process of destroying bacteria, enzymes, molds, yeasts by use of heat.
13. Nature's method of dehydration
14. Blanching can be done using boiling water or ______
15. Heating vegetables before placing in the jar is called the ______ pack method
17. Jars should be placed on a ______ in the steam-pressure canner
20. A substance found in fruits that thickens jellies
21. A conserves is a jelled ______ of fruits
22. A form of food spoilage mainly affecting low-acid foods
24. A fuzzy grayish or white growth form of food spoilage
27 Equipment used for draining produce
28. Major ingredient in jelly which preserves it
29. Canned goods should be stored in a ______ dark place
31. ______ fruit is used in making marmalade
32. Vegetables are not cooked before placing in jar for the raw ______ method of canning
33. Home food preservation may ______ you money
34. ______ ______ is the ingredient in jelly which provides the color and flavor

Down

2. If fruits for jelly do not contain enough ______, lemon juice may be added
3. Freezer burn may cause color change and nutrient ______
4. Method used to seal jellies
5. The hot ______ ______ is the method of canning used for high acid foods
9. Fruits may be frozen in syrup or ______ pack
10. Only ______ produce should be selected for preserving
11. A type of food spoilage caused by spore-forming bacteria
16. ______ are generally canned without adding additional water to the jar
18. A food which may be cooled without thawing
19. To dry
20 A type of food preservation using spices and vinegar
23. If not properly sealed, canned foods will ______
25. Part of the steam-pressure canner which must be closed for pressure to build
26. A jelly ______ is used to extract juice from fruit for jelly-making
30. A ______ pot or kettle should be used in making jelly

Food Preservation Crossword Puzzle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	c.	o
	d.	+
	e.	o
	f.	o
	g.	o
	h.	o
	i.	+
	j.	+
	k.	o
	l.	+
	m.	+
	n.	o
	o.	o
	p.	o
	q.	+
	r.	+
	s.	+
19.	a.	5
	b.	6
	c.	2
	d.	7
	e.	13
	f.	18
	g.	4
	h.	14
	i.	9
	j.	10
	k.	19
	l.	17
	m.	1
	n.	11

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 7: Food Preservation

ANSWERS TO ASSIGNMENT SHEETS

Assignment Sheet #1

Answers will vary

Assignment Sheet #2

Answers will vary

Assignment Sheet #3

2, 3, 7

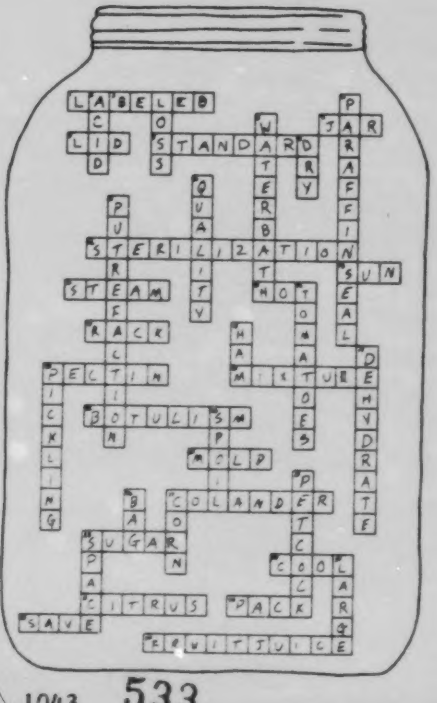
Assignment Sheet #4

NOTE: Some foods may be frozen in more than one type of container; prices will vary.

1. WM (foil, freezer wrap)
2. FC (plastic bags, boil-in-bags, ziplocks)
3. RC (jars, boxes)
4. FC
5. RC
6. FC - see #2
7. FC - see #2
8. FC - see #2
9. WM - see #1
10. RC - see #3

Assignment Sheet #5

Food Preservation Crossword Puzzle


LABELED
ACID
LID
COSTS
STANDARD
WATER BATH
DRY
JAR
PARAFFIN
PURE
QUALITY
STERILIZATION
SUN
STEAM
HOT
TOMATOES
SEAL
RACK
HAM
PECTIN
MIXTURE
DEHYDRATE
PICKLING
BOTULISM
MOLD
COLANDER
PROTECT
BACON
SUGAR
SPACE
CITRUS
PACK
COOL
LARGE
SAVE
FRUIT JUICE

BEST COPY AVAILABLE

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 7: Food Preservation

JOB SHEET #1: PREPARE CANNED FRUIT (Water Bath Method)

Directions: Select a fruit to can. Study canning procedures for this fruit in canning and recipe books. Use the following space to copy your recipe and preparation instructions. Complete the time-work plan on the back of this job sheet and prepare the recipe according to instructions.

This Recipe Is For

Ingredients

Preparation Instructions:

JOB SHEET #1 (Cont'd)

Time-Work Plan Name

Food to be Prepared: Kitchen

Food Supplies Needed:

Utensils Needed:

Order of Work Time in Minutes

1.

2.

3.

4.

5.

6.

7.

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 7: Food Preservation

JOB SHEET #2: PREPARE CANNED VEGETABLE (Steam-Pressure Method)

Directions: Select a vegetable to can. Study canning procedures for this vegetable in canning and recipe books. Use the following space to copy your recipe and preparation instructions. Complete the time-work plan on the back of this job sheet and prepare the recipe according to instructions.

This Recipe Is For ______________________________

Ingredients

______________________	______________________
______________________	______________________
______________________	______________________
______________________	______________________
______________________	______________________
______________________	______________________

Preparation Instructions: ______________________________

____

____

____

____

____

____

JOB SHEET #2 (Cont'd)

Time-Work Plan	Name
Food to be Prepared:	Kitchen

Food Supplies Needed:

Utensils Needed:

Order of Work	Time in Minutes
1.	
2.	
3.	
4.	
5.	
6.	
7.	

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Score Your Canned Foods

(Teacher-student evaluation)

	Perfect Canned Food	Your Canned Food
1. **CONTAINER** Neat, clean standard home canning jars Suitable size and shape of jars Well sealed Neat, readable, complete labels	**10 points**	______
2. **PACK** Attractive color and uniform shape of pieces Firm pack; product not floating Correct head space No trapped air bubbles	**15 points**	______
3. **CONDITION OF SOLID PIECES** Best stage of maturity for eating Natural color of fresh product retained Even color in each piece Firm but tender, uniform pieces	**5 points**	______
4. **CONDITION OF LIQUID** Clean and characteristic color for product Over the top of the product (solid pieces)	**5 points**	______
5. **FLAVOR** Agreeable flavor of freshly cooked product No stale, over-cooked flavor	**15 points**	______
TOTAL	**50 points**	______

Characteristics of Good Canned Vegetables

Even color-
Typical of vegetables

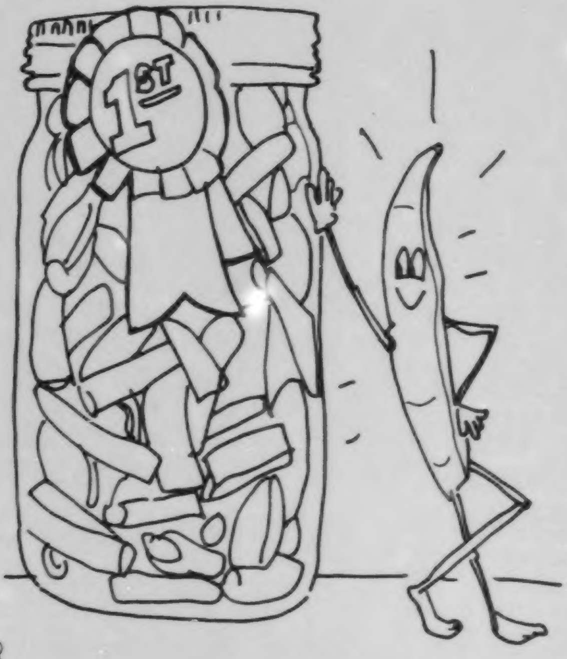
Even distribution
of vegetables

Liquid appropriate
from top of jar

Free of spoilage

Identifiable shapes

Uniform pieces



UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 7: Food Preservation

JOB SHEET #3: PREPARE PICKLES (Water Bath)

Directions: Select a recipe for pickles. Use the space provided on the next page to copy your recipe and preparation instructions. Complete the time-work plan that follows and prepare the recipe according to instructions.

Pickles refer not only to cucumbers, but to any vegetable, fruit, or meat prepared by a pickling process. Pickles come in a variety of shapes, sizes, colors and flavors. The boiling water-bath canner is the processing method used. Each pickle and relish recipe has its own processing requirements.

There are four basic pickle types:

BRINED PICKLES	are vegetables, usually cucumbers, which are fermented or cured in a salt solution and various spices for about 3-6 weeks.
FRESH-PACK or QUICK-PROCESS PICKLES	are vegetables soaked in a brine solution for several hours or canned in a spicy vinegar solution without brining.
RELISHES	are fruits or vegetables which are chopped and cooked in a spicy vinegar solution.
FRUIT PICKLES	are fruits simmered in a spicy sweet-sour syrup.

When completing pickling procedures do not use equipment or utensils made of zinc, iron, brass, copper, galvanized metal, or enamelware with chips or cracks. Be sure to fresh pack in glass, stainless steel or unchipped enamelware. It is also necessary to brine in crock, stone jar, unchipped enamel, glass or hardwood kegs with enamel, glass or paraffin lining plus a heavy lid.

JOB SHEET #3 (Cont'd): PREPARE PICKLES

This Recipe Is For

____

Ingredients

______________________________ ______________________________

______________________________ ______________________________

______________________________ ______________________________

______________________________ ______________________________

______________________________ ______________________________

______________________________ ______________________________

Preparation Instructions: ______________________________

____

____

____

____

____

____

TIME-WORK PLAN

Name ______________

Food to be Prepared: ______________

Kitchen ______________

Food Supplies Needed:

Utensils Needed

Score Your Pickles

(Teacher-student evaluation)

	Perfect Canned Food	Your Canned Food
1. **CONTAINER** Neat, clean standard home canning jars Suitable size and shape of jars Well sealed Neat, readable, complete labels	**10 points**	______
2. **PACK** Attractive color and uniform shape of pieces Firm pack; product not floating Correct head space No trapped air bubbles	**15 points**	______
3. **CONDITION OF SOLID PIECES** Best stage of maturity for eating Natural color of fresh product retained Even color in each piece Firm but tender, uniform pieces	**5 points**	______
4. **CONDITION OF LIQUID** Clean and characteristic color for product Over the top of the product (solid pieces)	**5 points**	______
5. **FLAVOR** Agreeable flavor	**15 points**	______
TOTAL	**50 points**	______

Characteristics of Good Pickles

Even color

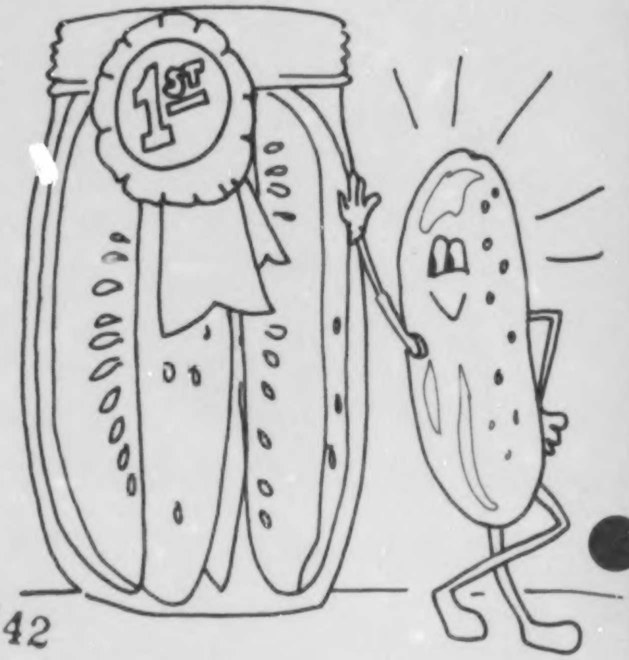
Even distribution

Liquid appropriate from top of jar

Free of spoilage

Identifiable shapes

Uniform pieces



UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 7: Food Preservation

JOB SHEET #4: PREPARE JELLY

Directions: Select a recipe for jelly. Use the following space to copy your recipe and preparation instructions. Complete the time-work plan in this job sheet and prepare the recipe according to instructions.

This Recipe Is For ______________________

Ingredients

______________________	______________________
______________________	______________________
______________________	______________________
______________________	______________________
______________________	______________________
______________________	______________________

Preparation Instructions: ______________________

____

____

____

____

____

____

JOB SHEET #4 (Cont'd)

Time-Work Plan　　Name

Food to be Prepared:　　Kitchen

Food Supplies Needed:

Utensils Needed:

Order of Work	Time in Minutes
1.	
2.	
3.	
4.	
5.	
6.	
7.	

NAME ____________________

DATE ____________________

TYPE OF PRODUCT ____________________

Score Your Jellies Using the Following Criteria

(Teacher-student evaluation)

ASSIGN: 5 Points for Excellent
3 Points for Good
1 Point for "Needs Improvement"

Add the points for each category to get your score. Perfect score is 35.

CONTAINER	Should be of suitable size and shape, clean, and neatly labeled.	______
CLARITY	Jelly is clear, not cloudy or opaque.	______
SHAPE	Jelly is firm and compact, holds its shape when removed from container. No excessive "weeping" or separation.	______
TEXTURE	Jelly is tender, but slightly firm. Consistency is smooth, no gritty particles or lumps.	______
FLAVOR	Jelly tastes natural, fruitlike, and fresh. Free from bitter, scorched or carmelized flavor.	______
COLOR	Color is natural and representative of fruit used; color is bright. No browned or scorched areas.	______
PRESERVATION	Jelly should be free from any sign of fermentation or molds. Jar should be well sealed with paraffin or lid.	______

YOUR TOTAL SCORE ______

TOTAL POSSIBLE ______

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 7: Food Preservation

JOB SHEET #5: FREEZE FRESH FRUIT

Directions: Use the following space to copy your recipe and preparation instructions for freezing the fruit that you select. Complete the time-work plan that follows and prepare and freeze fresh fruit according your plan.

This Recipe Is For

____

Ingredients

____________________	____________________
____________________	____________________
____________________	____________________
____________________	____________________
____________________	____________________
____________________	____________________

Preparation Instructions: ______________________________

____

____

____

____

____

____

JOB SHEET #5 (Cont'd)

Time-Work Plan Name

Food to be Prepared: Kitchen

Food Supplies Needed:

Utensils Needed:

Order of Work	Time in Minutes
1.	
2.	
3.	
4.	
5.	
6.	
7.	

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 7: Food Preservation

JOB SHEET #6: FREEZE FRESH VEGETABLES

Directions: Use the chart from the information sheet as you complete this activity. Determine preparation, length of blanching time, and type of pack for a variety of different kinds of vegetables.

This Recipe Is For ______________________

Ingredients

______________________ ______________________
______________________ ______________________
______________________ ______________________
______________________ ______________________
______________________ ______________________
______________________ ______________________

Preparation Instructions: ______________________________
____
____
____
____
____
____

JOB SHEET #6 (Cont'd)

Time-Work Plan Name

Food to be Prepared: Kitchen

Food Supplies Needed:

Utensils Needed:

Order of Work	Time in Minutes
1.	
2.	
3.	
4.	
5.	
6.	
7.	

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 7: Food Preservation

JOB SHEET #7: WRAP MEAT TO BE FROZEN

I. Supplies and equipment

  A. Plastic-coated freezer wrap

  B. Meat

  C. Freezer tape

  D. Scissors

  E. Wax pen or pencil

II. Wrap meat by the butcher wrap method following steps on information pages.

III. Wrap meat by drugstore wrap method following steps on information pages.

JOB SHEET #7 (Cont'd)

Student-Teacher Evaluation

	Procedure followed very well	**Procedure followed satisfactorily**	**Procedure followed poorly**
A. Butcher wrap			
1. Food placed diagonally close to one corner of wrap and paper folded over food			
2. Opposite sides of the paper are folded toward the middle so the paper overlaps			
3. Opposite side of paper is firmly secured over package with freezer tape			
4. Package is neatly labeled with name of item and date			
5. Item is placed in freezer			
6. All supplies are put away properly and work area is cleaned			

Total possible 18

Total received ________

JOB SHEET #7 (Cont'd)

Student-Teacher Evaluation

	Procedure followed very well	**Procedure followed satisfactorily**	**Procedure followed poorly**
B. Drugstore wrap			
1. Food is placed in center of paper with opposite edges of paper brought together			
2. Paper is neatly and securely rolled down in a series of small folds against the food			
3. Ends are neatly folded into points with paper pressing close to food			
4. Folded ends are folded securely against the package (on side opposite center fold) and sealed with freezer tape			
5. Package is neatly labled with name of item and date			
6. Item is properly placed in freezer			
7. All supplies are put away and work area is clean			

Total possible 18

Total received ________

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 7: Food Preservation

JOB SHEET #8: DRY FRUIT

Directions: Select a recipe for drying fruit. Fruit such as bananas, apricots, apples, grapes, berries, pineapple, pears, peaches, or even oranges make good dried fruit. Use the following space to copy your recipe and preparation instructions. Complete the time-work plan on the back of this job sheet and prepare the recipe according to instructions.

Drying is an inexpensive form of food preservation. It requires little equipment for processing and even saves on storage space. Dried fruits are often called fruit rolls or taffies. They can be eaten as is, made into a beverage, used in a pie filling, in cooking, or as a dessert topping.

This Recipe Is For ______________________

Ingredients

______________________	______________________
______________________	______________________
______________________	______________________
______________________	______________________
______________________	______________________
______________________	______________________

Preparation Instructions: ______________________

____

____

____

____

____

____

JOB SHEET #8 (Cont'd)

Time-Work Plan Name

Food to be Prepared: Kitchen

Food Supplies Needed:

Utensils Needed:

Order of Work	Time in Minutes
1.	
2.	
3.	
4.	
5.	
6.	
7.	

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 7: Food Preservation

TEST

1. Match terms associated with food preservation to the correct definitions. Place the correct numbers in the blanks provided.

_____ a. Fruit product made by cooking proper amounts of fruit juice, sugar, and pectin until desired consistency is reached

_____ b. Method of preparing food for canning by filling the jar with raw food and liquid, and then processing it

_____ c. Growth of bacteria, mold, or yeast in canned foods, usually due to some failure in processing

_____ d. Process of preserving food by using heat to destroy harmful microorganisms while sealing the food in containers

_____ e. Manner in which food is placed into the jar

_____ f. Empty space left at the top of the jar or container in which food is packed

_____ g. Rhubarb, sauerkraut, tomatoes and other citrus fruits, and any pickled product that may be processed in a waterbath canner

_____ h. Substance found in fruits that thickens or jells when heated and combined with fruit acid and sugar

_____ i. Process of destroying bacteria, enzymes, yeasts, molds, and other substances that might cause food to spoil

_____ j. Vegetables, meats, and other foods not falling into acid food group that must be processed in a steam-pressure canner

1. Pectin
2. Sterilization
3. Jelly
4. Hot pack
5. Canning
6. Food spoilage
7. Low-acid food
8. Sealing
9. Head space
10. Pack
11. High-acid food
12. Spore
13. Cold pack
14. Paraffin seal
15. Freezing
16. Drying
17. Blanching
18. Syrup blanching
19. Moisture-proof/vapor-proof

____ k. Method of preparing food for canning by filling jars with hot food and liquid, and then processing it

____ l. Making the jar air tight

____ m. Highly resistant, dormant form of bacteria

____ n. Fast, easy sealing method which involves no special canning equipment

____ o. Boiling fruits in sugar-water solution

____ p. Removal of liquid from food by natural or artificial means

____ q. Process of removing moisture from food so that microorganisms will not grow

____ r. Characteristics necessary for freezer containers and wrapping materials in order to keep moisture and flavor in while keeping air and odors out

____ s. Process in which vegetables or fruits are placed in colander or other container and placed in a kettle with small amount of boiling water

____ t. Drying of foods caused by exposure to very dry, cold air

____ u. Boiling food in water for a few minutes and then dipping in cold water to prevent spoilage

____ v. Method of preserving food at a temperature of 0°F or below

____ w. Moisture-proof or vapor-proof container or wrapping material used for freezing food

____ x. Pretreating fruits with flowers of sulfur or sublimed sulfur before drying

20. Freezer burn
21. Dehydration
22. Steam-blanching
23. Sulfuring
24. Proper packaging

2. Discuss reasons for food preservation.

3. Select from the list below factors to consider when selecting foods to be preserved. Mark each correct answer with an "X."

____ a. Select meat from a healthy animal.

____ b. Select vegetables that have set for a couple of days.

____ c. Select foods that are at their peak in quality and flavor.

____ d. Select small fruits that are ripe, bruised, and sour.

____ e. Select the proper quantity of raw produce according to the number of jars needed and amount of produce needed to fill each jar.

____ f. Select meats and poultry that have been chilled quickly after killing.

4. List factors to consider when selecting a food preservation method.

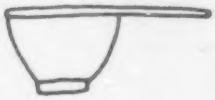
a.

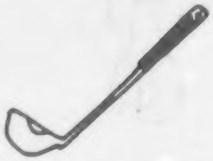
b.

c.

d.

5. Label equipment used in canning. Write the correct names in the blanks provided. Below each write its main use.



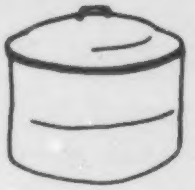


a. ______________________

Use:

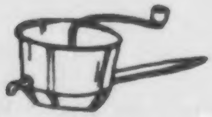
b. ______________________

Use:



c. ______________________

Use:



d. ______________________

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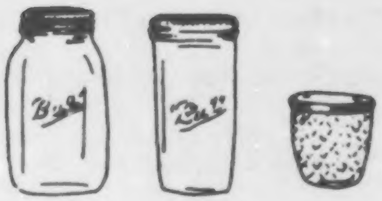

e. ______________________

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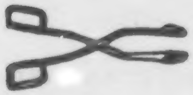

f. ______________________

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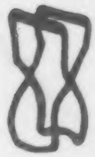

g. ______________________

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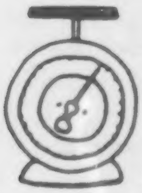

h. ______________________

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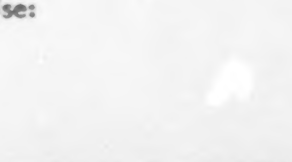

i. ______________________

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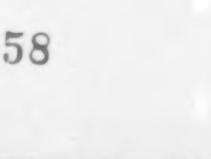

j. ______________________

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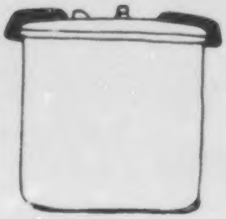
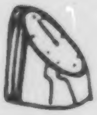


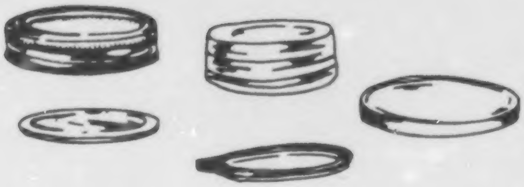


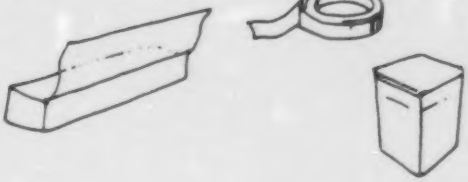
k. ____________________

Use:

l. ____________________

Use:



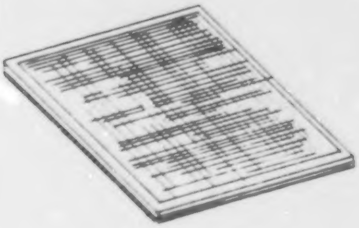


m. ____________________

Use:

n. ____________________

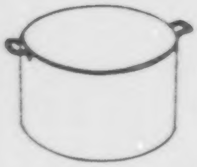
Use:



o. ____________________

Use:

6. Label parts of a water-bath canner and steam-pressure canner. Write the correct names in the blanks provided.



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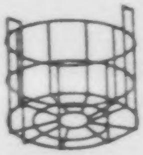

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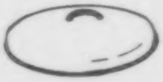

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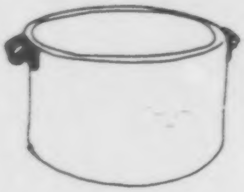

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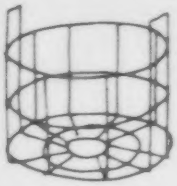

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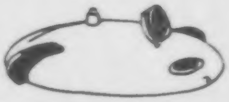

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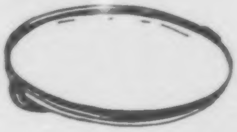

____

7. Match the parts of the water-bath and steam-pressure canners to the correct functions. Place the correct numbers in the blanks provided.

____ a. Measures pressure in steam-pressure canner

____ b. Holds canned food, rack, and water during processing

____ c. Replaceable rubber seal in cover rim that prevents air/steam leakage

____ d. Controls pressure by allowing air/steam to be released from canner

____ e. Prevents heat from leaving kettle

____ f. Provides for easy and safe moving of hot, full canner

____ g. Replaceable plug that melts or is blown out of canner lid if pressure or temperature becomes too high

____ h. Holds jars off bottom of kettle to prevent overheating during processing

____ i. Locks cover in place to prevent it from being lifted by steam during processing

1. Kettle
2. Gasket
3. Pressure gauge
4. Combination steam valve and petcock
5. Cover grip
6. Rack
7. Side handle
8. Cover
9. Safety plug

8. Match common methods of canning to the correct uses. Place the correct numbers in the blanks provided.

____ a. Recommended for use in canning beans, corn, meats, and other low acid foods

____ b. Recommended for use in making jelly, only when paraffin is used as a seal

____ c. Recommended for use in canning fruits, pickles, and other high-acid foods

1. Water-bath

2. Open kettle

9. Arrange in order the steps in canning. Place a "1" in front of the first step, a "2" in front of the second step, and so on, until complete.

____ a. Wash filled jars in warm, soapy water; rinse and dry

____ b. Pack food in jars

____ c. Examine tops of jars

____ d. Wipe top of jar with clean, damp cloth

____ e. Assemble all equipment

____ f. Remove air bubbles from jar with spatula

____ g. Store filled jars in a cool, dry place

____ h. Place lids in pan and pour boiling water over them

____ i. Rinse jars thoroughly

____ j. Process in boiling water bath or pressure canner

____ k. Test for sealed lids when jars are completely cold

____ l. Wash jars well in hot water

____ m. Place prepared lid on jar with sealing composition next to glass

____ n. Place jars on rack or folded cloth to cool

____ o. Add boiling liquid according to recipe

10. Arrange in order the steps in making jelly. Place a "1" in front of the first step, a "2" in front of the second step, and so on, until complete.

____ a. Wipe glass to remove any jelly on surface.

____ b. Pour jelly into hot sterile glasses.

____ c. Cook at a rolling boil for 1 minute.

____ d. Wash glasses in warm, soapy water; sterilize and keep warm.

____ e. Extract juice from fruit.

____ f. Cover jelly with melted paraffin.

____ g. Remove any scum from jelly.

11. Describe the three tests for sealed lids.

12. List two characteristics of good storage areas for canned foods.

a.

b.

13. Select from a list the rules for freezing fruits, vegetables, meats and prepared foods. Place an "X" in front of correct rules.

____ a. Freeze all fruits whole.

____ b. Use lemon juice to prevent fruit from darkening.

____ c. Blanch fruits before freezing.

____ d. Blanch vegetables before freezing.

____ e. Pack vegetables in containers without adding liquid.

____ f. Rewrap purchased meats before freezing.

____ g. Package foods in appropriate serving amounts.

14. State three factors to consider in purchasing containers or wrapping materials used in home freezing.

a.

b.

c.

15. Complete the following chart on types of containers and wrapping materials used in home freezing by filling in the spaces provided.

Type of Containers or Wrapping Materials	Examples	Recommended Uses	Some Foods Which Can Be Stored
Rigid Containers	Glass canning jars Freezer jars Plastic freezer boxes Waxed boxes	Used in packaging most foods but are recommended for all foods that are soft or fluid at room temperature	a. ____________ ______________ ______________ ______________ ______________
b. ____________	Plastic bags	Used in packing meat and other products with irregular shapes as well as vegetables and fruits packaged without syrup or added sugar	Birds, fish, grapes, raspberries, blueberries, eggs that have been frozen in and removed from ice trays
Wrapping materials	Plastic wrap Foil wrap Plastic-coated paper wrap	c. ____________ ______________ ______________ ______________	Chicken pieces, hamburger, fish pieces, porkchops

16. Demonstrate the ability to wrap meat to be frozen (complete on JS 7).

17. Select from the following list the rules for storing food in the freezer. Mark each correct answer with an "X."

____ a. Replace foods used from the freezer with others for economical use of freezer space.

____ b. Store foods indefinitely in the freezer.

____ c. Keep a record of frozen foods that are in storage; update as foods are put in or taken out.

____ d. Place most recently frozen foods on the top or front of freezer.

____ e. Store like foods together.

____ f. Label and date all foods to be stored in freezer.

18. Select from the list below the correct methods of thawing frozen foods. Mark each correct answer with an "X."

____ a. Use defrost cycle of microwave oven.

____ b. Thaw meats by placing container in a pan of boiling water until completely thawed.

____ c. Thaw prepared foods in the refrigerator or microwave.

____ d. Place fruits in boiling water until completely thawed for serving.

____ e. Defrost frozen foods in refrigerator if time allows.

____ f. Thaw all foods before cooking.

____ g. Thaw baked goods under running water.

19. State methods used to prepare frozen foods for serving.

a.

b.

c.

d.

20. List two methods of drying foods.

a.

b.

21. Select from the following list factors to consider in packaging and storing dried foods. Mark each correct answer with an "X."

____ a. Package in small amounts.

____ b. Store in cool, dark, dry place.

____ c. Cool dried foods before packaging.

____ d. Pack food as loosely as possible.

____ e. Containers should not be sealed so that contents will be allowed to reabsorb moisture.

22. Describe two methods used in preparing dried foods for use.

a. ______________________________

____

b. ______________________________

____

23. Match types of food spoilage to the correct characteristics. Place the correct numbers in the blanks provided.

________ a. Caused by lack of cleanliness and underprocessing of fruits, jellies, vegetables, breads, and meat; appears as a fuzzy, grayish, or white growth on surface; may have a musty odor or feel slimy

________ b. Caused by yeast organism reacting with underprocessed fruit juices to produce bubbles of carbon dioxide; has an ethyl alcohol or beer-like smell

________ c. Caused by clostridium botulinum, a spore-forming bacteria commonly found in dirt, which affects low acid vegetables and meats; may have a rancid or rotten odor that is made stronger by heating; may feel slimy, liquid may be discolored, and gas may be present

________ d. Caused by presence of spore-forming bacteria that develop in tomatoes, beans, peas, corn, pumpkin, and greens; develops very sour, unpleasant odor and usually appears very cloudy

________ e. Caused by presence of spore-forming bacteria that develop in underprocessed meats and vegetables; has a very foul odor that gets stronger with heating; food feels soft and slimy; gas bubbles may be present.

1. Fermentation
2. Mold
3. Botulism
4. Putrefaction
5. Flat sour

24. List two ways to avoid food spoilage.

a. ______________________________

b. ______________________________

UNIT VII: SELECTION, CARE, PREPARATION, AND STORAGE OF FOOD

Lesson 7: Food Preservation

ANSWERS TO TEST

1. (50 Points)
   a. 3
   b. 13
   c. 6
   d. 5
   e. 10
   f. 9
   g. 11
   h. 1
   i. 2
   j. 7
   k. 4
   l. 8
   m. 12
   n. 14
   o. 4
   p. 22
   q. 16
   r. 19
   s. 23
   t. 21
   u. 20
   v. 17
   w 15
   x 25
   y. 24

2. (5 Points)
   Discussion should include:

   a. Prevent produce from spoiling
   b. Gain self-satisfaction
   c. Obtain desired flavor
   d. Carry on traditions established by others
   e. Have access to foods during off season
   f. Save time in meal preparation
   g. Save money

3. (4 Points)
   a,c,e,f

4. (8 Points)
   Any 4 from:

   a. Equipment needed
   b. Time required
   c. Amount of food
   d. Desired food flavor
   e. Required preparation of food for serving
   f. Costs and availability of supplies
   g. Space available
   h. Keeping quality

5. (30 points)
a. Funnel - prevents spilling when placed in jar while filling
b. Ladle - spoons foods into containers
c. Water-bath canner - process acid foods in boiling water
d. Food mill - purees vegetables and fruits
e. Jars - store and process canned foods
f. Tongs - grip foods and lids when placing in or removing from hot water
g. Jar lifter - grips hot jars to remove from canner
h. Household scale - measure produce by weight
i. Wire basket - holds vegetables or fruits when dipped in boiling water
j. Colander - drains liquid from foods
k. Steam-pressure canner - process canned foods under pressure
l. Timer - accurately measures processing time
m. Lids - seal processed jars of canned foods
n. Freezer wrap and containers - moisture proofing for freezer storage
o. Drying tray - holds fruits and vegetables for dehydration

6. (13 Points)
a. Side handle
b. Kettle
c. Rack
d. Cover
e. Side handle
f. Kettle
g. Rack
h. Pressure gauge
i. Combination steam valve and
j. Safety plug
k. Cover grip
l. Cover
m. Gasket

7. (18 Points)
a. 3
b. 1
c. 2
d. 4
e. 8
f. 7
g. 9
h. 6
i. 5

8. (6 Points)
a. 3
b. 2
c. 1

9. (30 Points)
a. 14
b. 6
c. 2
d. 9
e. 1
f. 8
g. 15
h. 5
i. 4
j. 11
k. 13
l. 3
m. 10
n. 12
o. 7

10. (14 Points)
a. 6
b. 5
c. 3
d. 2
e. 1
f. 7
g. 4

11. (6 Points)
Description should include:
a. Hear the seal; when sealing it will make a popping sound

b. See the seal; if the lid is curved down, it is sealed

c. Feel the seal; if the center of the lid will not move when pressed downward, the jar is sealed

12. (4 Points)
Any two of the following:
a. Cool
b. Dry
c. Dark

13. (10 Points)

a. b
b. d
c. e
d. f
e, g

14. (6 Points)
Any three of the following:
a. Food to be frozen
b. Durability of container or wrapping material
c. Space available for storing frozen food
d. Cost of containers and wrapping materials
e. Reusability of packaging materials
f. Design of containers and wrapping materials

15. (6 Points)

a. Fruits packed in syrup or sugar, butter, stews, creamed foods, meats with gravy
b. Flexible containers
c. Used in packaging meat that is freshly processed or to repackage purchased meat

16. (39 Points)

Evaluated to the satisfaction of the instructor on evaluation sheet

17. (8 Points)

a,c,e,f

18. (6 Points)

a,c,e

19. (8 Points)
a. Thaw and serve
b. Cook and serve
c. Thaw, cook, and serve
d. Serve

20. (4 Points)
Any two of the following:
a. Sun drying
b. Oven drying
c. Commercial drying

21. (6 Points)
a,b,c

22. (5 Points)

Description should include any two of the following:

a. Cover fruits and vegetables with cold water and allow to soak in order to add moisture.
b. Cook in water until tender.
c. Add flavoring such as salt, pepper, bacon drippings, and salt pork to vegetables as they cook.
d. Add sugar to fruit at the end of cooking process if desired.

23. (10 Points)

a. 2
b. 1
c. 3
d. 5
e. 4

24. (4 Points)

Any two of the following:

a. Observe strict sanitation practices
b. Follow directions carefully
c. Work quickly
d. Watch processing time accurately
e. Use recommended containers and seal properly
f. Keep freezer at 0°
g. Do not thaw and refreeze foods
h. Use all foods within recommended period of time.

UNIT VIII: MEALS FOR FAMILY AND SPECIAL OCCASIONS

UNIT OBJECTIVE

At the conclusion of this unit, the student should be able to plan, prepare, and serve meals for the family and a special occasion following guidelines for appropriate table service selection, and follow proper etiquette when eating at home and in restaurants. This knowledge will be assessed through the completion of assignment sheets, job sheets and by scoring 85% on the unit test.

SPECIFIC OBJECTIVES

After completion of this unit, the student should be able to:

1. Define terms associated with meals for family and special occasions.
2. Describe basic meal patterns for family meals and meals for special occasions.
3. Identify characteristics to look for and factors to consider when selecting, purchasing, and caring for tableware.
4. Describe the various formal and informal methods of meal service and table arrangement.
5. List five reasons for attaining social skills.
6. List and demonstrate appropriate social skills for dining and identify inappropriate practices.
7. Describe various types of eating places.
8. Identify and follow guidelines for dining in a restaurant including making reservations, ordering, paying the bill, and tipping.
9. Plan, prepare, serve, and eat family meals following given guidelines.
10. Plan, prepare, and serve meals for special occasions (formal meal, buffet, and reception) following given guidelines.

UNIT VIII: MEALS FOR FAMILY AND SPECIAL OCCASIONS

SUGGESTED ACTIVITIES

I. Suggested Activities for Instructor

   A. Order films, filmstrips, pamphlets, etc., to supplement unit.

   B. Provide students with objective sheet.

   C. Provide students with informational and assignment sheets.

   D. Make transparencies.

   E. Prepare bulletin board.

   F. Discuss unit and specific objectives.

   G. Adapt material for special needs students.

   H. Determine time allotment for unit and decide whether assignments will be at-home or in-class assignments, which lab experiences to use and whether to use one or all review assignments.

   I. Determine whether to evaluate by test at end of entire unit or in sections.

UNIT VIII: MEALS FOR FAMILY AND SPECIAL OCCASIONS

INSTRUCTIONAL MATERIALS

I. Included in this unit

   A. Objective sheet

   B. Information sheets

   C. Handouts

      1. HO 1: Extending a Formal Invitation
      2. HO 2: Placement of Items for Serving a Buffet
      3. HO 3: Placement of Items for Serving a Reception

   D. Transparency masters

      1. TM 1: Selecting Dinnerware
      2. TM 2: Selecting Flatware
      3. TM 3: Styles of Flatware
      4. TM 4: Selecting Glassware
      5. TM 5: How Are Your Table Manners
      6. TM 6: Your Manners Are Showing at Home
      7. TM 7: Your Manners Are Showing When You're Out

   E. Assignment Sheets

      1. AS 1: Family Meal Planning
      2. AS 2: Family Eating Habits
      3. AS 3: Table Service Match-Up
      4. AS 4: Know Your Glassware Design
      5. AS 5: Tableware: Buy It Right!
      6. AS 6: "Let's Pretend"
      7. AS 7: Set It Right! Reviewing Basic Table Setting
      8. AS 8: Case Studies
      9. AS 9: Planning Your Table
      10. AS 10: Importance of Attaining Social Skills
      11. AS 11: Why Do You Eat Out and What Do You Look For?
      12. AS 12: Could This Happen to You?
      13. AS 13: Let's Eat Out
      14. AS 14: Reading a Menu

   F. Answers to assignment sheets

   G. Job sheets

      1. JS 1: Folding a Decorative Napkin
      2. JS 2: Planning, Preparing, and Serving a Luncheon
      3. JS 3: Planning, Preparing, and Serving a Family Dinner
         a. Cost Analysis for Family Dinners

4. JS 4: Planning, Preparing, and Serving a Formal Dinner
    a. Judging a Menu Plan...For What It's Worth
5. JS 5: Planning Preparing, and Serving a Buffet
6. JS 6: Planning, Preparing, and Serving a Reception
7. JS 7: Role Playing - The Diners

H. Answers for job sheets

I. Test

J. Answers to test

II. Unit References

A. Better Homes and Gardens, Best Buffets, Meredith Corporation, 1974.

B. Co-Ed magazine "The Importance of Attaining Social Skills," December 1981.

C. Creasy, D. and J., Exploring Foods, Prentice-Hall, Englewood Cliffs, NJ: 1980.

D. Current Lifestyles magazine "Family Eating Habits," March 1981.

E. Forecast for Home Economics magazine, December 1981.

F. Kowtaluk, H. and Kopan, A., Food For Today, Chas. Bennett Co. Inc., Peoria, IL: 1977.

G. Largen, V., Guide to Good Food, Goodheart-Willcox Co., Inc., South Holland, IL: 1979.

H. Newberry, L. and Fisher, F., The Food Book, Goodheart-Willcox, Co., Inc., South Holland, IL: 1981.

I. Ohl, S., et. al., Guide to Modern Meals, McGraw-Hill Book Co., St. Louis, MO: 1981.

J. Vanderbilt, A., Amy Vanderbilt's Etiquette, Doubleday & Co., Garden City, NY: 1972.

K. White, R., You and Your Food, Prentice-Hall, Inc., Englewood Cliffs, NJ: 1976.

III. Visuals

A. "Selecting and Eating in a Restaurant", Interpretive Education, A Division of IE Products Inc., 2306 Winters Drive, Kalamazoo, Michigan 49002 - Filmstrip and cassette for purchase.

B. "Meal Planning for Today's Living Kit" Swanson Frozen Foods, Camden, NJ 08101. Free on request.

UNIT VIII: MEALS FOR FAMILY AND SPECIAL OCCASIONS

NOTES TO THE INSTRUCTOR

1. Review or repeat the section "Meal Patterns and Menu" in Home Economics I - Basic Core and assignments #2 "Evaluating Menus" and #3 "Plan Menus" Parts I and II.

2. Show series of 4 filmstrip clips "Meal Planning for Today's Living" and discuss.

3. Plan field trip to a nearby jewelry store or department store displaying tableware. Have students look for specific information and ask the person in charge to speak to the group.

4. If a field trip is not possible, ask a person who works in a store selling fine tableware to speak to the class explaining what is available, what the consumer should look for in buying and giving details of what his/her job entails (career incorporation).

5. Have students find pictures in magazines which show table settings for formal and informal occasions.

6. Make arrangements with a local "better" restaurant to have your students visit during off hours or slack time. If the management is cooperative, ask them to go through the motions of a dinner so students can "practice." Also have them explain the roles of the various restaurant employees (career incorporation).

7. Have students who have been employed in restaurants describe their jobs, problems encountered and observations of mistakes made by customers (career incorporation).

8. Invite a restaurant owner, caterer or other foodservice person to class to describe their role and type of things they do (career incorporation).

9. Show filmstrip "Selecting and Eating in a Restaurant" either as introduction to dining out or as a review.

10. As an extra activity, have students design a menu for a restaurant (career incorporation).

11. HO #11, 15, 16 from "Managing the Foods Department" Unit may be used.

12. Suggestions on HO #18 from "Managing the Foods Department" might be followed if time, budget, or class size does not permit lab experience.

13. The teacher should decide which Job Sheets for meal preparation will be used if time or budget will not permit use of all six.

14. The teacher should work out in advance a budget for each meal preparation so that each group can follow a specific budget allotment for the menu they plan.

15. The teacher should work out plans for the class to shop together for groceries used in meal preparation, if feasible, so students practice good shopping techniques and are aware of how much they are spending on their meal (each group might have their groceries totaled separately.). Students should also store groceries properly.

16. Distribute student evaluation forms before meal planning.

17. Teacher should refer students to Unit VI when planning time schedules for meals.

18. The test is only a partial evaluation; some objectives are evaluated solely by assignment and job sheets. If the teacher also wants these evaluated by the test, questions may be added to the end.

19. Use of assignment sheets:

    a. Review or repeat the section on basic tablesetting of Home Economics I - Basic Core "Meal Planning and Table Service." Use "Set it Right" Assignment sheet #7 in this guide as a pretest to determine if review is necessary.

    b. Obtain pamphlet and brochures showing various brands and designs of tableware with prices for students to look at and use for cut-outs in Assignment Sheet #9. (Ask local stores or write to companies for them.)

    c. Obtain as many menus as possible from a variety of restaurants for student use in class Assignment Sheet #14. Ask restaurant personnel for these; some restaurants are very cooperative while others may not be. Some have older or soiled menus they may be willing to give you while others are happy to let customers have a current menu as publicity.

    d. Following Assignment Sheet #14, have students role play customers and waiters/waitresses using actual menus to order correctly, ask appropriate questions, figure the bill, etc.

MEALS FOR FAMILY AND SPECIAL OCCASIONS

UNIT VIII

INFORMATION SHEETS

I. Terms and definitions

A. **Meal pattern** - outline used for meal planning

B. **Buffet** - a meal at which guests serve themselves from a serving table

C. **Reception** - a more formal type of buffet with lighter foods; usually to honor a person or event

D. **Tableware** - dinnerware, glassware, flatware, table covering and accessories

E. **Stemware** - glasses with stems

F. **Tumblers** - glasses without stems

G. **Goblets** - stemware piece large enough for serving water

H. **Sherbets** - stemware piece with a low stem appropriate for serving dessert

I. **Crystal** - finest quality clear glassware which rings like a bell when tapped

J. **Blown glass** - made by blowing air into molten glass

K. **Pressed glass** - made by pressing liquid glass into a mold

L. **Tinted glass** - entire glass is colored

M. **Cased glass** - one layer is clear and one layer colored with design cut through top layer

N. **Etched glass** - design is added to glassware with an acid

O. **Cut glass** - design is cut into glassware

P. **Banded glass** - platinum or gold bands are applied to top rim

Q. **Frosted glass** - design is applied by sand-blasting or acid

R. **Embossed glass** - design is raised

S. **Engraved glass** - pattern is cut in by means of revolving wheels

T. **Milk glass** - opaque white glassware

U. **Irridescent glass** - has rainbow-like luster

V. **Transparent** - clear; allows light to show through and images to be seen

W. **Opaque** - does not allow light to pass through

X. **Translucent** - allows light to go through so that a shadow will be seen of an object through the material; a characteristic of fine china

Y. **Porous** - not dense

Z. **Bone china** - fine china which has bone ash as an ingredient

AA. **Stoneware** - dinnerware which is more durable than earthenware but heavier and more casual in appearance than china

BB. **Porcelain** - fine china, non-porous, translucent with a clear, bell-like tone when tapped

CC. **Earthenware** - opaque, heavy, and casual in appearance

DD. **Ironstone** - type of earthenware more resistant to heat

EE. **Pottery** - not as hard as earthenware, "crude" in appearance

FF. **Glass ceramic** - lightweight, strong, translucent glass; resistant to heat and breakage

GG. **Melamine** - a plastic used for dinnerware

HH. **Pewter** - gray metal alloy

II. **Flatware** - forks, knives, spoons, and serving pieces

JJ. **Silver plate** - a base metal coated with silver

KK. **Stainless steel** - steel alloyed with chromium to resist rusting and staining

LL. **Sterling silver** - 92.5 silver and 7.5 parts alloy

MM. **Open stock** - tableware pattern which can be bought in individual pieces and will be available for some time

NN. **Place setting** - tableware for one person; usually the way fine china and flatware is purchased

OO. **Linens** - tablecloths, placemats, and napkins made of not only linen but many other fabrics

PP. **Hollowware** - teapots, bowls, pitchers, and other containers used on the table

QQ. **Tarnish** - darkness or dullness of silver, copper or brass caused by exposure to air or certain foods

RR. **Crazing** - surface cracking of the glaze on dinnerware

SS. **Glaze** - a protective coating on dinnerware which turns clear when fired at high temperatures

TT. **Cover** - an individual place setting including dinnerware, flatware, and linens needed by one person; ideally 20-30 inches of space for each person

UU. **Condiment** - cream, sugar, catsup, sauces, relishes, etc.

VV. **Entree** - main course

WW. **Menu** - listing of all foods that are served and their prices

XX. **a la carte** - each item is listed and priced separately

YY. **Table d'hote** - gives one price for a complete dinner

ZZ. **"Dutch treat"** - each person pays separately

AAA. **Gratuity** - tip; payment for service

BBB. **Maitre d'hotel** - head waiter

CCC. **Etiquette** - social rules and customs held by a group of people

II. Basic meal patterns for family meals and meals for special occasions

A. Family meal patterns (AS 1, AS 2)

1. Breakfast

a. Breakfast should supply from one-fourth to one-third of the total daily nutrients and calories.

b. Energy needs determine whether a person should have a light, medium, or heavy breakfast.

c. Customarily, a smaller variety of foods are served at breakfast (eggs, bacon, cereal, etc.); however, any foods from the basic food groups could be used for breakfast if they are more appealing to the individual.

d. Studies show that individuals who skip breakfast are less alert, more subject to illness, have trouble meeting their daily nutritional needs, and tend to overeat later in the day, which often leads to overweight.

e. Light pattern - fruit or juice (usually citrus), cereal and milk, bread, beverage

f. Medium pattern - fruit or juice (usually citrus), main dish (protein food), bread, beverage

g. Heavy pattern - fruit or juice (usually citrus), cereal and milk, main dish (protein food), bread, beverage

2. Luncheon or Supper

a. When served at mid-day this type of meal is called luncheon or lunch; when served in the evening it is referred to as supper.

b. Moderately heavy meal supplying about one-third of the day's nutrients; usually simpler than the dinner meal

c. Lunches may be light, medium, or heavy depending on calorie and nutrient needs.

d. Light pattern - main dish (protein food in casserole, soup, salad, or sandwich), vegetable or fruit, milk or other beverage

e. Medium pattern - main dish (protein food in casserole, soup, salad, or sandwich), combination of two vegetables or fruits, milk or other beverage

f. Heavy pattern - main dish (combines protein food in casserole, soup, salad or sandwich), vegetable and/or fruit, dessert (optional), milk or other beverage

3. Dinner

a. The largest and most elaborate meal of the day, which may be served either at noon or in the evening

(NOTE: In some families, during the week, dinner may be served in the evening when all family members are home; on Sundays and holidays, it may be served in the afternoon. In rural areas where family members are working at home during the day, the largest meal of the day traditionally has been the noon meal or dinner.)

b. Dinners may be light, medium, or heavy depending on the nutritional and caloric needs of the family.

c. Light pattern - main dish (meat, fish, or poultry), two vegetables (or vegetable and fruit), bread, beverage

d. Medium pattern - main dish (meat, fish or poultry), two vegetables (one usually starchy), salad, bread, light dessert (optional), beverage

e. Heavy pattern - main dish (meat, poultry, or fish), two vegetables (one starchy), salad, bread, dessert (could be heavier), beverage

NOTE: Remember that these are basic patterns and may be varied further.

B. Meals for Special Occasions (HO 1)

1. General characteristics of special occasion meals

a. Differ little from basic family meal patterns. (Any of the family meal patterns might be adapted for use for a special occasion.)

b. More elaborate foods are usually served than for family meals.

c. More separate courses may be included than usual family meals, depending on the formality

d. Table setting and service are usually more elaborate than family meals.

e. Meals for special occasions tend to be more expensive than family meals.

2. Type of meals for special occasions

a. Formal - sit-down meal

Suggested dinner pattern for more formal meal

Course I - Appetizer *
Course II - Soup
Course III - Salad **
Course IV - Main dish (meat, poultry, fish)
2 Vegetables, one starchy
bread
Course V - Dessert

Beverage ***

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* The appetizer may be served either in living room preceding dinner or as the first course at the table.

** In some very formal meals the salad might be served following the main course, preceding the dessert.

*** Separate beverages are usually served with each course, with water remaining through meal - additional beverages might include iced tea and coffee (usually served with dessert).

b. Buffets - (NOTE: Also see "Serving Buffet Meals" in this guide.

1) Buffet meals range from very informal to very formal for 4-40 or more people.

2) Menu patterns for a buffet should include foods easily prepared ahead of time, and efficient to serve and cleanup.

3) Foods served usually include main dish, 1-2 vegetables, salad, bread, dessert and beverage. Those chosen should be:

a) Foods easily eaten while standing or eating with no table (if this is the arrangement)

b) Foods easily self-served (carving at table, etc.)

c) Foods that can be kept warm (chafing dish, warming tray, etc.) or cold (chipped ice, etc.) during the length of the buffet

d) Foods which look attractive throughout the meal, even after portions have been removed

e) Foods which can be prepared in advance

B. Reception - more formal type of buffet which may range from a tea consisting of tea, punch, cookies, and candy to a simple meal of sandwiches, cold cuts, etc. Receptions are usually served in honor of a person or a special event.

1. Beverages often consist of punch and tea or coffee.

2. Foods (cookies and sandwiches) are usually small and dainty; may be fingerfoods.

3. Foods are usually quite decorative.

4. Decorations, usually formal, carry out a theme.

5. Usually intended to be a refreshment rather than a meal.

III. Selection of table service

(NOTE: An attractive table shows you took care in preparing the meal and that you care about those you are serving.)

A. Dinnerware

1. Materials

a. Porcelain (china) is formal, delicate, lightweight, non-porous, translucent, usually white or light in color, and has a clean bell-like tone when tapped. It is made from a hard paste of fine white clay and feldspar fired three times, before and after it is glazed and after it is decorated.

b. Bone china is white, translucent porcelain made with bone ash instead of feldspar.

c. Stoneware is made from a finer clay than earthenware but not as fine as china; fired at higher temperatures than earthenware but not as high as china; more durable than earthenware and usually freezer- and oven-safe; heavy and more casual in appearance than china.

d. Earthenware is opaque when held up to the light and gives a flat tone when tapped; made of coarser clay than porcelain; less durable than stoneware and china; porous; baked at higher temperatures than pottery but not as high as china; available in bright colors and casual in design.

e. Ironstone is a type of earthenware which has been more highly fired to make it stronger to resist heat and crazing.

f. Pottery is not as hard as earthenware and is more porous; has a "crude" appearance; usually of bright colors and informal design.

g. Glass ceramic is lightweight, stronger than earthenware, stoneware and ironstone; rivals china in appearance; resists breakage and chips and is oven-proof. An example is the Corelle brand.

h. Plastic dinnerware is mainly made of melamine, lightweight and resists breakage; quality varies greatly; may stain, melt and scratch; informal in design; quick turnover in designs.

i. Miscellaneous - glass, stainless steel, silver, pewter, wood, etc.

2. Selecting (TM 1)

a. Consider personal taste, lifestyle, and amount of money to be spent (traditional or contemporary; formal or informal; lots of pieces or a few basic; expensive china or inexpensive plastic).

b. Consider amount of available storage space.

c. Buy from a reputable dealer.

d. Check the finish on the edges, especially on the cups, to be sure there are no unglazed spots.

e. Consider how the color and pattern will look with food.

f. Look for dual-purpose serving pieces to use for both cooking and serving.

g. Look for ovenproof and microwave-safe pieces, and durability to suit your needs.

h. Pick up a cup to see if it is comfortable to hold and if the shape is deep enough to keep beverages hot.

i. Select a color and pattern which will coordinate well with room decor and is versatile enough to mix and match with your accessories. For example, china may be more formal and traditional; stoneware more casual and contemporary.

j. Buy open stock dinnerware if you plan to continue to make purchases over a period of time or wish replacement pieces.

k. Starter sets are sometimes available at a special price.

l. Dinnerware is often sold in 3-, 4-, or 5-piece place settings.

m. Select the plate shape most suitable for your style and needs.

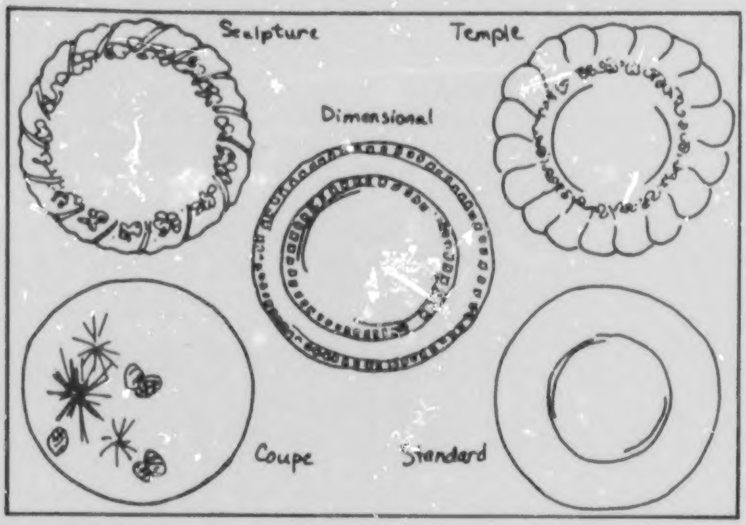
    1) Coupe - plain round shape, more contemporary

    2) Standard - has a wide flat shoulder; more traditional

    3) Sculpture - coupe shape with fluting (more formal contemporary)

    4) Temple - standard shape with fluting (more formal traditional)

    5) Dimensional - has a narrow, curved rim



3. Care

   a. Rinse as soon as dishes are removed from table.

   b. Handle with care.

   c. Wash in hot, sudsy water.

   d. Rinse in hot but not boiling water.

   e. Do not use scouring powder or steel wool, which will scratch the glaze.

   f. Towel drying may be necessary to prevent water spotting (be careful of lint, too).

   g. Follow manufacturer's instructions concerning the dishwasher.

   h. Store fine pieces with a napkin, tissue or pad between pieces.

   i. Never place in oven unless dinnerware is oven-proof.

   j. Avoid extremes of temperatures.

   k. Never hang cups as it weakens the handles. Do not stack cups more than two high.

B. Flatware

1. Materials

   a. Sterling silver - by law is made of 92.5 percent pure silver and 7.5 percent alloy; comes in four different weights; very expensive; sometimes used as a financial investment

b. Silver plate - made of metal coated with silver; cost depends on the number of coatings of silver and the amount used; less expensive than sterling

c. Stainless steel - an alloy (mixture) of chrome, iron, and nickel which varies greatly in cost and quality (may have wooden or plastic handles in less formal types)

d. Vermeil - silver gilded with gold

2. Selecting (TM 2, TM 3)

   a. Consider the amount of money to be spent.

   b. Consider personal taste, lifestyle and style of dinnerware and room decor when choosing from decorated traditional, simple traditional, decorated contemporary, and simple contemporary styles.

   c. Determine which basic place setting pieces, additional place pieces, and serving pieces you want . (AS 3)

      1) Place setting pieces

         a) "Place size" settings are the most commonly used today. (some patterns are also made in a large place size for those who prefer larger flatware pieces.)

         b) The place knife and fork are used for every type of meal; the place spoon is used for cereal, soup or dessert. The salad fork can also double as a dessert or fish fork. The teaspoon is used for hot beverages, dessert, cereal, and bouillon.

      2) Additional place pieces

         a) Cocktail or oyster fork - a small, slender fork used for seafood appetizers

         b) Iced beverage spoon - a teaspoon with a long handle that can be used with parfaits and iced beverage in a tall glass

         c) Demitasse spoon - a tiny spoon for coffee served in demitasse cups

      3) Typical serving pieces

         a) Tablespoon - for vegetables, fruits, sauces, salads

         b) Pierced tablespoon - for vegetables, fruits, salad

c) Cold meat or buffet fork - also for chops, souffles, fried chicken, platter salads, sliced tomatoes, cheese

d) Butter serving knife - also for cheese, jams, spreads, jellies, hors d'oeuvres

e) Sugar spoon - also for relishes, preserves, nuts, jams, sauces

f) Gravy ladle - also for sauces, salad dressings, punch, soup, stew, creamed dishes

g) Flat server - for cold meats, chops, salads, tomatoes, broccoli, asparagus, cucumbers, eggs

h) Olive or pickle fork - for relishes, lemon slices, butter pats, garnishes

i) Pie or cake server - also for pastries, frozen desserts, fish, cutlets, waffles, aspics, meat loaf

d. Purchase from open stock if you plan to add to the set over a period of time.

e. Find out how long pattern will be available.

f. Starter sets are sometimes sold at lower prices.

g. If sold by place settings, find out how many basic pieces are included.

h. Buy from a reputable dealer.

i. Inspect the finish, especially on the edges of the fork tines, knife blades and spoon bowls.

j. Choose additional place and serving pieces which have more than one use.

3. Care

a. Rinse soon after use, if not planning to wash immediately.

b. Use mild soap or detergent in warm water.

c. Do not scour.

d. Loosen any dried food with a soft brush.

e. Follow manufacturer's directions for use in dishwasher.

f. Keep sterling in use to prevent tarnishing.

g. Store sterling and silver plate in tarnish-proof bags, chests, or drawers.

h. Use a good silver polish when needed and use according to directions.

i. Store stainless steel in divided racks.

j. Pieces may need to be towel-dried after washing to prevent water spots.

C. Hollowware - follow same guidelines as dinnerware, flatware and glassware.

D. Glassware

1. Types

a. Stemware - Glasses with stems, usually considered more formal than tumblers

1) Dessert - footed or low stemmed bowls suitable for desserts such as sherbets. Capacities usually from 3½ to 6 ounces.

2) Water goblet - rounded bowl on stem base, average size is 10½ ounce.

3) Wine - stemmed glasses for wine, delicate shapes and lightweight, range from 3 ounces to 6 ounces depending on type of wine to be served

b. Tumblers - glasses without stems; usually less formal than stemware

1) Iced tea - straight shell, 12 ounce capacity is most average size.

2) Juice - usually low, shaped glass, capacity from 5 to 6 ounces

3) Water - Straight or tapered shell, heavy base, 6 to 10 ounce capacity

2. Materials

a. Crystal - finest glassware; clear, uncolored and when tapped rings like a bell; lead crystal is higher quality than lime

(NOTE: Because there are no restrictions of the use of the word "crystal" it can refer to any glass; therefore, to determine quality crystal, look for the word "lead".)

b. Glass - made from sand and sodium; varies in quality

c. Plastic is most casual, inexpensive glassware; wide variety of colors, durable, difficult to keep clean.

3. Design and decoration (AS 4)

   a. Blown - made by blowing air into molten glass; may be done by hand or machine.

   b. Pressed - made by pressing or blowing the liquid glass into molds; less expensive than blown or cut.

      (NOTE: Pressed glass from the 1930's or earlier, called depression glass, is prized by collectors, which makes it expensive.)

   c. Tinted - entire glass is colored, yet transparent.

   d. Cased - one layer of clear glass is placed over a layer of colored glass; when the colored layer is cut, the clear layer is exposed.

   e. Etching - areas around design are coated with a compound which resists acid. The entire glass is covered with the acid, which removes a layer of glass leaving the design etched; less expensive etched glassware is made using a series of moving needles.

   f. Cutting - design is cut into the glass, by hand on the finest pieces and by machine on less expensive pieces.

   g. Banding - platinum and gold bands are applied to top rim, usually by hand on fine glassware.

   h. Frosting - an acid (or sand blasting) is applied which eats away at the glass, giving the surface a frosted appearance.

   i. Embossed - has the design raised in relief, the opposite of the etched design.

   j. Engraved - pattern is hand-cut by means of revolving wheels or abrasives.

   k. Milk glass - made opaque white by adding chemicals, then polishing.

   l. Irridescent - has a rainbow-like luster which is produced by applying silver or bismuth in a thin film to the surface, giving a shimmering, multi-colored effect.

4. Selecting (TM 4)

   a. Consider personal taste, lifestyle, and the amount of money you have to spend.

b. Be sure glass is comfortable to hold and drink from.

c. Be sure glass is well balanced and will not tip easily.

d. Choose pieces that can serve more than one purpose.

e. Find out how long replacement pieces will be available.

f. Keep storage space in mind.

g. Joints should be invisible and rims smooth; there should be no visible air bubbles or flaws.

h. If glass is cut, check to see that the edges are sharp.

i. Select glassware to go with table coverings. For example, a lace tablecloth, fine china, sterling silver, and fine lead crystal all go together. However, fine lead crystal may look out of place with plastic placemats, stoneware and stainless steel.

j. Select open stock to replace pieces.

k. Most common pieces of stemware are goblets and sherbets.

5. Care

a. Wash glassware before dinnerware.

b. Glasses should not be stacked unless especially designed for it.

c. Handle with care; use a mat in the sink.

d. Hold stemware at base of bowl, not at the stem.

e. Do not plunge cold glassware into hot water (it may crack or break).

f. Rinse soon after use.

g. Never pry glasses which are stuck together. Fill one with cool water (not cold) and place other in warm (not hot) water.

h. Follow manufacturer's directions concerning use of dishwasher; glassware with metallic trim should usually be washed by hand.

D. Table coverings and napkins (JS 1)

1. Functions of table coverings

a. Protect table

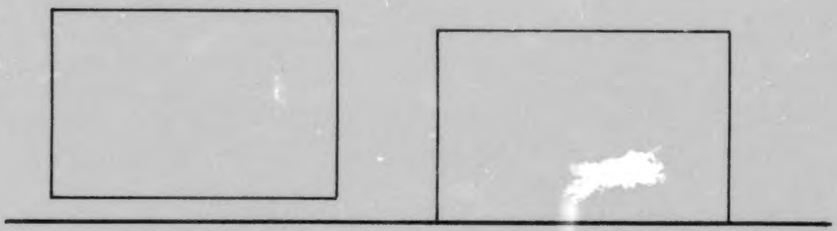
b. Add color and atmosphere

2. Types

a. Tablecloth - covering of vinyl, linen, paper, cotton, polyester, rayon, blends; should hang over table edge 6-10 inches; may hang to the floor on buffet tables

b. Placemats - coverings of lace, straw, bamboo, cork, plastic, quilted fabrics, and tablecloth fabric; usually 11 x 17 inches in size; used alone or over tablecloth; usually less formal than tablecloth

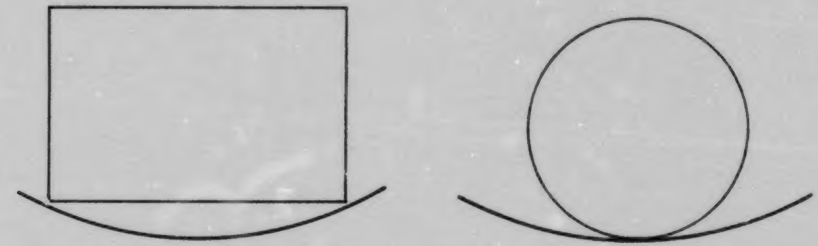
1) Position of placemats in relation to table edge:



a) Mat 1 inch from table

b) Mat flush with table edge

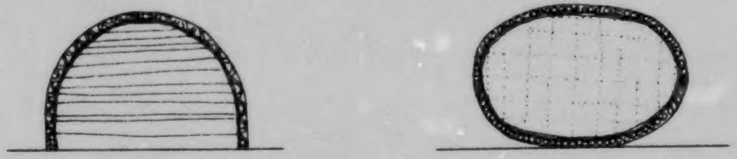
2) Position of mats on table with curved edge:



a) Rectangular mat

b) Small round mat

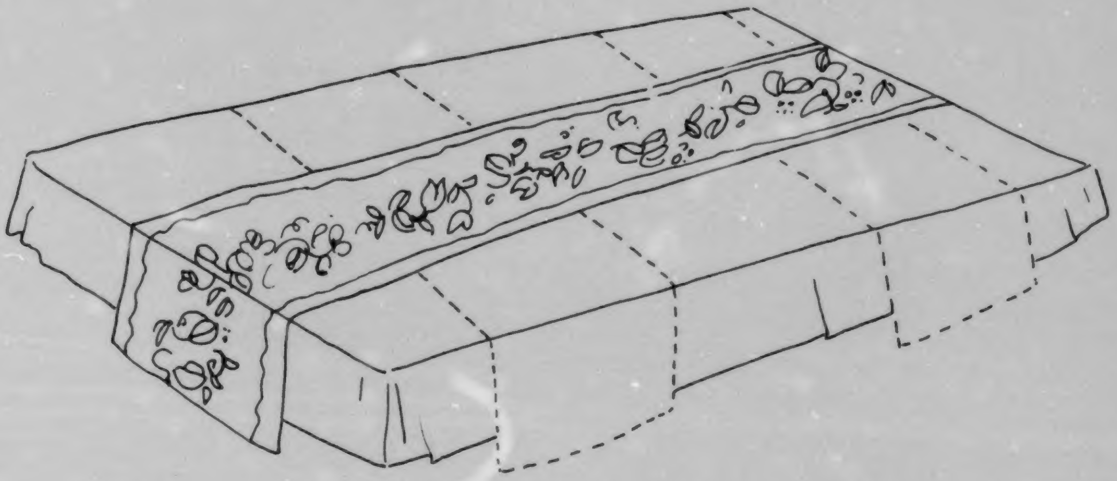
3) Positions of large round and oval mats on table



a) Large round mat folded at table edge

b) oval mat

c. Runner - long, narrow cloth that covers center of table; often used with placemats or over cloth.



d. Table pad ("silence cloth") - used under the table cloth; muffles sounds; protects table from spilled liquids and heat.

e. Napkins should coordinate with or match other table covering; sizes are cocktail 5" square, luncheon, 15" (cm) square, and dinner, 22-26" square; may be of fabric or paper; paper is generally appropriate only for casual meals. (JS 1)

f. Napkin rings are made of metal, plastic, wood, beads, etc; used to hold napkins and accessorize the table.

3. Selecting

    a. Consider color and pattern of dinnerware (dishes with a definite pattern will look best with a plain tablecloth or placemat).

    b. Consider the formality - the rougher the texture and brighter the color, the less formal; the smoother the texture and paler the color, the more formal.

    c. Consider the amount of storage space.

    d. Consider care requirements and ease of laundering.

    e. Consider durability.

    f. Select correct sizes for your needs.

    g. Choose versatile pieces which might be mixed and matched.

E. Centerpiece

1. Should add color and beauty
2. Need not be expensive
3. Should fit formality of table and meal
    a. Informal - fresh fruit, raw vegetable arrangement, salad, molded gelatin, special cake, potted plants, leaves, pine cones and evergreens, bulky candles, flowers such as daisies, mums, etc.
    b. Formal - pale colored tapers (candles), silver, gold, crystal accessories, flowers such as carnations, roses, etc.
4. Should harmonize with rooms, dishes, and food
5. Should be low enough so those at the table can see over it
6. Usually placed in center but may be placed "off-center" at one end if there are no covers there
7. Should suit the mood you are trying to create
8. Should be in proportion to the size of the table
9. Candles, when used, should be lit and burn above or below eye level.
10. Candles are best used in the evening or night-time hours or on dark days. (AS 5 and AS 6 review)

IV. Styles of food service (serving meals)

(NOTE: Names of serving styles will differ depending on references and locale.)

A. Serving sit-down meals

  1. Informal service methods (JS 2 and JS 3)

    a. Family or country style - food is brought to the table in serving dishes which are passed around the table so that individuals help themselves. People can eat as much as desired (allows for overeating). Many serving dishes are necessary.

    b. Blue plate service - food is portioned out into individual plates in the kitchen and brought to the table and placed before each person; foods such as bread, butter, and relishes may be passed at the table so people can help themselves; this method allows for portion control (good for weight watchers and the budget) and requires few serving dishes.

    c. English Service - food is brought to the table in serving dishes and placed in front of the host, who then puts food on plates and passes one to each person. The hostess may also serve some of the food. This method works best with a small number of people and when serving dishes are too hot to pass easily.

  2. Formal service methods (JS 4)

    (NOTE: Usually require a waitress or waiter)

    a. English Service - same as the English Service used for informal service except that after the plate is filled, a waiter or waitress carries the plate to the individual.

    b. Russian - a waiter or waitress takes a platter of food to each person and serves the person a portion; sometimes individuals help themselves.

    c. Continental (blue-plate) - a waiter or waitress serves each person a plate of food filled in the kitchen.

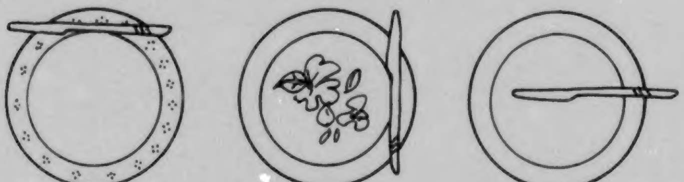
d. Compromise - some courses are served by one method and others are served by another method. For example, the appetizer, soup and dessert might be dished out in the kitchen and served continental style while the main course is served English style.

B. Placement of dinnerware (For basic tablesetting see "Meal Planning and Table Service" Home Economics I - Basic Core.)

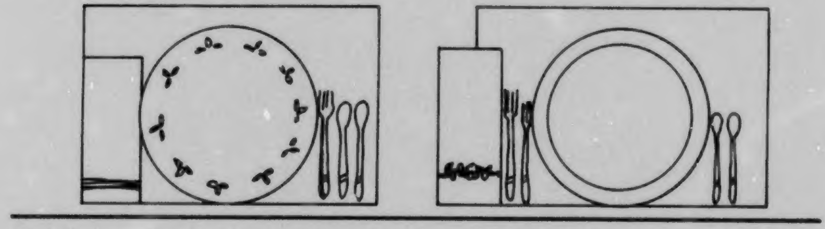
NOTE: Guidelines for table setting will vary with different authorities and in different situations.

1. Variations from the basic tablesetting:

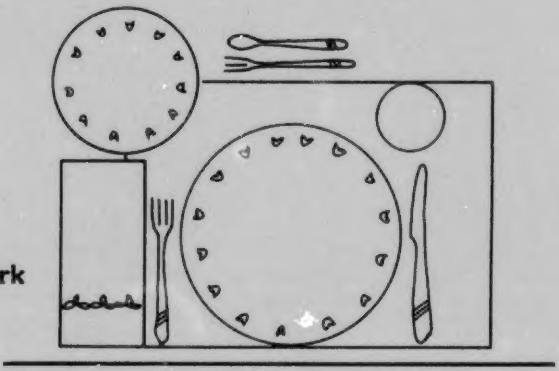
Possible positions of butter spreader on bread-and-butter



Possible positions of fork when no dinner knife is laid



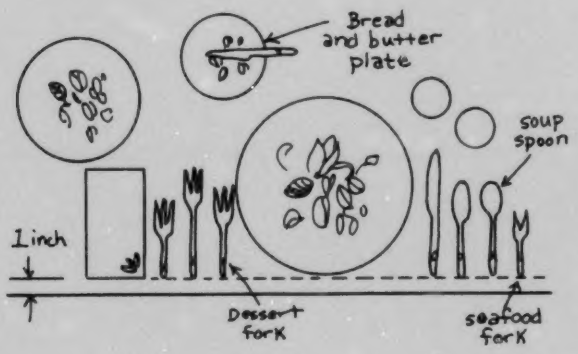
a. On right when only one is laid **b. On left when salad fork is also laid**



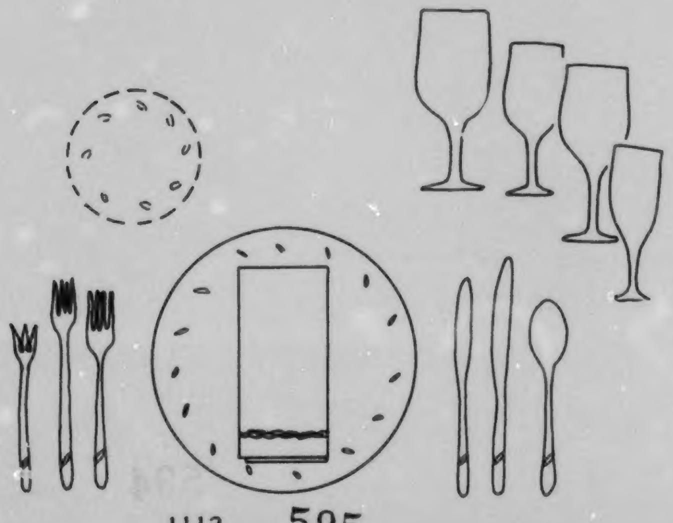
Possible position for dessert fork and beverage spoon

2. Formal Settings

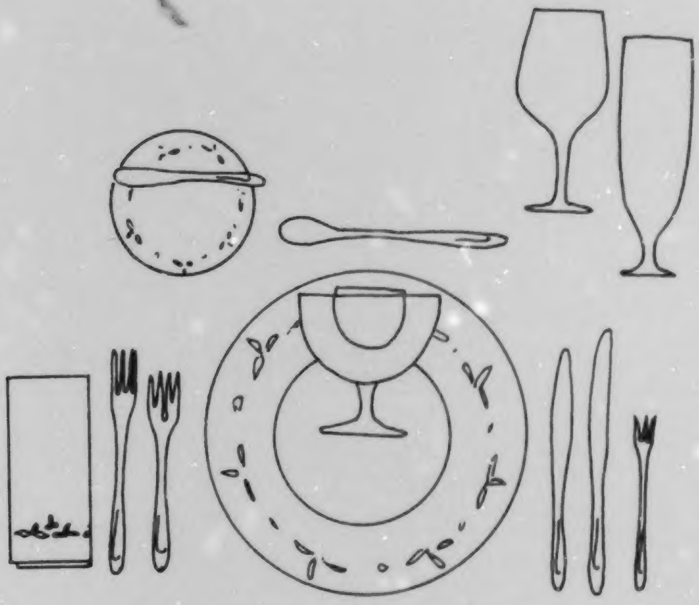
a. Additional pieces of tableware are used for more formal meals. These may include the bread and butter plate, bread and butter knife, dessert fork, soup spoon, seafood fork, and other glassware.



b. Formal place setting - the dinner napkin is on the service plate as the guest is seated. Shown are the usual number of glasses for formal dinner. Note in this illustration the oyster fork is shown with the other forks, an optional arrangement, but no more than three forks may be in place at one time. In this case the salad fork and knife (if needed) will be put in place when the salad course is served. At a really formal dinner there are no ash trays on the table. There is no smoking until the service of dessert has been accomplished. Butter plate is optional.



c. Formal luncheon setting - first course: if seafood cocktail is served, it is in place as guests are seated. Seafood fork is placed to the right of knives and parallel to them. The iced tea spoon above the service plate may be placed to the right of the knives. The salad knife, optional, depends on the type of salad and whether cheese is served. Napkins are to left of forks.



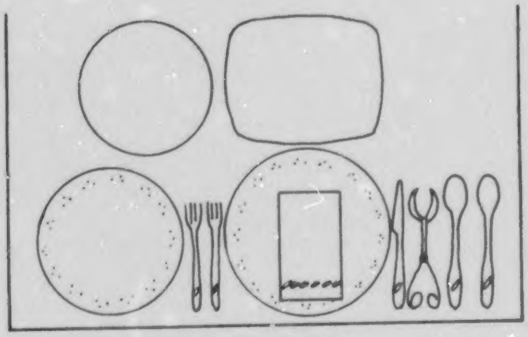
3. Placement of serving pieces for English Service

   a. Place filled serving dishes beside and in front of the host's cover.

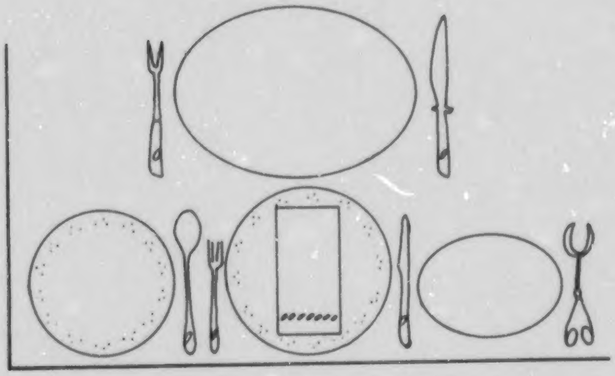
   b. Place to the right of the serving dish or platter one serving tool if only one is needed.

c. When two serving tools are provided, lay one on each side of the container or place them to the right and left of the host's cover.

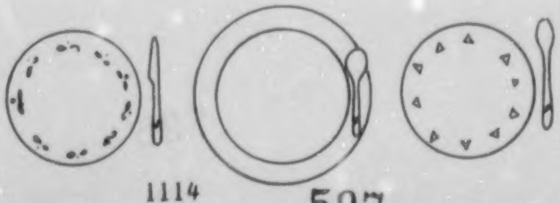
1) Serving pieces laid at host's cover.



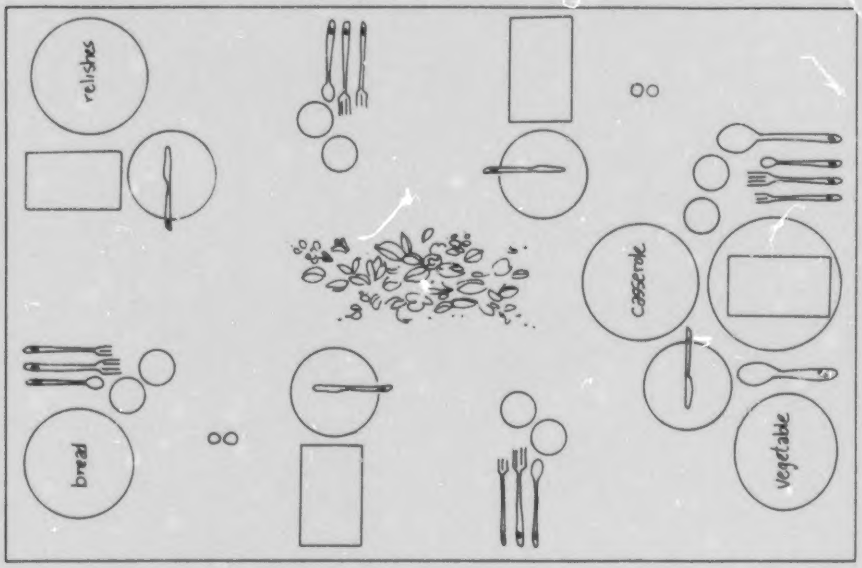
2) Serving pieces laid beside serving dishes



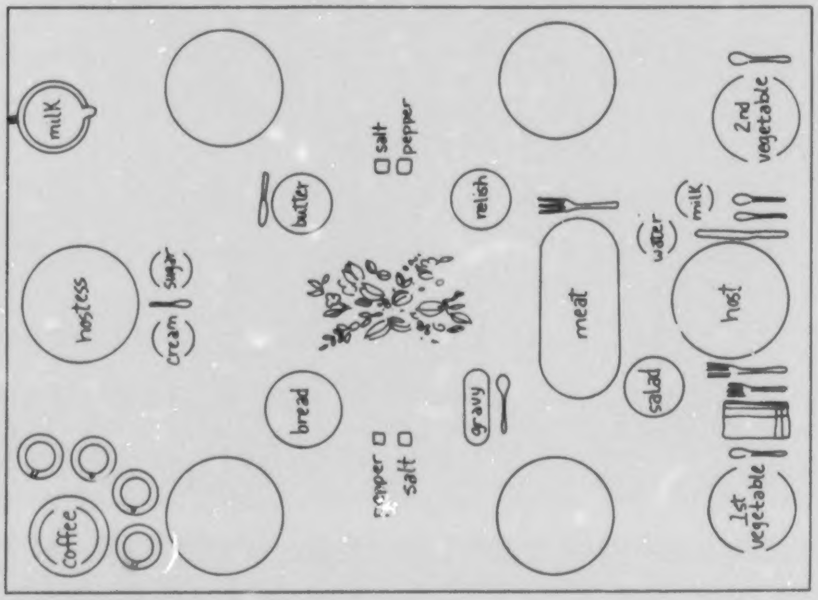
4. Lay the serving tools for small containers of food passed at the table like butter and jelly to the right of a dish that has no underlines, but on the underlines when one is used.



5. Placement of dinnerware for compromise service

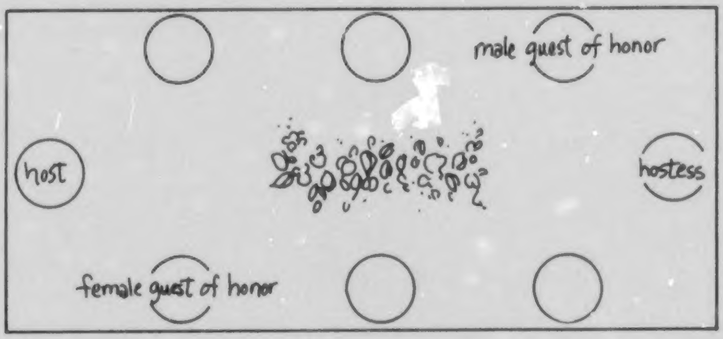

relishes
casserole
bread
vegetable

6. Placement of dinnerware when hostess assists host in serving


milk
butter
salt
pepper
relish
hostess
sugar
cream
bread
pepper
salt
gravy
coffee
meat
water
milk
host
salad
2nd vegetable
1st vegetable

C. Duties of the host and hostess

1. Greet guests as they arrive.
2. Make necessary introductions.
3. Make guests feel comfortable.
4. Host or hostess indicates where guests are seated.
    a. Hostess usually is seated closest to kitchen.
    b. Host is seated opposite.
    c. Female guest of honor is at the right of the host.
    d. Male guest of honor is at the right of the hostess.
    e. Other males and females are spaced alternately, if possible.



5. Hostess begins the meal and the eating and ends the meal.
6. Hostess asks someone to say grace if grace precedes the meal (this person should have been told in advance).
7. Host and hostess keep conversation flowing smoothly.
8. Host and hostess should continue eating as long as at least one guest is still eating.

D. Duties of those serving

1. Carry two filled plates to the table at one time (continental serving).
2. From the left, place the dish in the left hand at the host's cover.

3. Transfer the second plate to the left hand and place it in front of the person at the right of the host, also from the left side. Serve the remaining plates in the same way.

4. Serve beverages from the right side of the person, using the right hand.

5. Water glasses are filled before diners are seated.

6. Do not lift glass from table to refill but slide glass to the table edge if necessary. Water is poured to within an inch of the top of the glass. Catch drips with a clean napkin.

7. Handle dishes and plates so you do not touch surfaces onto which food will be served.

8. A service plate should always be used under cocktail glass, soup bowl and sherbet glass.

9. Remove dishes from table after each course.

10. Remove first any serving dishes in center of table.

11. Next, remove covers, beginning with the host (some references say hostess or special guest).

12. Remove plates and salad plates from the left, using left hand; transfer dish to right hand and place on service tray.

13. When tray is full, carry to the kitchen; do not scrape or stack dishes at the table.

14. Beverage glasses and unused knives and spoons are removed from the person's right side with the right hand.

15. Remove all items which will not be used for the next course; do not remove water glasses or any flatware or coffee cups which will be used for the next course.

16. To serve the new course, place any flatware first, then any small items which will be needed such as sauce, cream, etc. The needed dinnerware is placed at each cover, and finally the food and/or beverage is placed.

17. Salt and pepper shakers should be placed on the table before diners are seated and spaced for convenience. Unless individual shakers are used, it is recommended to have one set for two persons.

E. Serving buffet meals and receptions (HO 2 and 3) (JS 5 and 6)

1. Guests serve themselves directly from a table on which food is arranged.

2. Buffets range from very informal to very formal, although they are usually considered informal.

3. Serving may be carried out in several ways:

    a. One or two serving lines

    b. Flatware and napkins on serving tables or placed on individual tables

    c. Beverage and dessert may be on main serving table, separate serving tables, or be served by a waiter.

    d. Guests might stand after filling plates, sit at another large table, set at numerous small tables, or in chairs with no tables.

4. Size of buffet can range from 4 to 40 or more depending on space available.

5. Any table, shelf, buffet, bookshelf, coffee table, desk, ping pong table, etc. which meets size requirements may be used.

6. Theme, decorations, and table covering are not necessary but add greatly to the success of the buffet; they should coordinate and add interest; tablecloth can be longer on a buffet table and centerpiece can be larger. (AS 8 and 9 review)

V. Importance of attaining social skills (AS 10)

A. Using proper social skills when eating shows consideration for feelings of others.

B. Using proper social skills gives one more confidence and a more relaxed feeling (to fit into social situations more comfortably).

(NOTE: People today are in many different social situations where food is served besides at home. Can you think of some?)

C. Using proper social skills (or a lack of them) leaves an impression on others.

D. Using proper social skills creates a pleasant, attractive atmosphere.

(NOTE: The French nutritionist Jean Tremoliere has stated: "When people eat they don't nourish just their bodies but also their appetites, their hearts, their memories.")

E. Using proper social skills makes dining easier and more convenient.

VI. Appropriate and inappropriate behavior for dining (JS 7) (TM 5 and 6)

A. Table conduct

1. Be neat and clean when you come to the table. Always wash your hands before a meal.

2. Come to the table when the meal is ready. Do not make others wait.

3. Let older people precede you. Do not rush to the table.

4. Wait for eveyone to be gathered in the eating area before you sit down.

5. Sit down from the left side of your chair. People can collide when they sit down from different sides of their chairs.

6. If you are sitting to the left of a young child or an elderly person, help that person to be seated. Gently push in the chair as he or she sits down.

7. If grace is said at the table, sit or stand quietly through it.

8. Do not start to eat until everyone has been served.

9. Sit up straight. Do not slump on the table, lean against it with your arm, or rest your elbow on the table.

10. Keep your elbows near your sides while you eat. Do not spread them out like wings.

11. Keep the needs of others in mind. See that food is passed to them. Do not serve yourself first, unless the host asks you to do so.

12. Apologize in the event of an accident, and then try to forget it. Talking about it only keeps it fresh in everyone's mind.

13. Do not blow your nose at the table unless you absolutely must. Instead, excuse yourself from the table. Use a handkerchief as unobtrusively as possible.

14. Listen to others when they are talking, but do not be afraid to add to the conversation yourself.

15. Do not argue. Introduce pleasant topics. If you are calm while you eat, you will digest your food better.

16. Remain at the table until the meal is finished. If special circumstances do not allow this, always ask to be excused before leaving.

17. Do not smoke at the table until all food has been removed and then only with permission; be sure to use an ashtray.

18. Remove any gum before coming to the table.

B. Correct eating practices

1. Take small bites and eat slowly.
2. Chew with your mouth closed. Do not talk with food in your mouth.
3. Cut off each bite of food just before you eat it.
4. Lift the food to your mouth when you eat. Do not lower your head to the food.
5. Eat all the food taken on a fork or spoon at one time. Never take any of it out of your mouth again.
6. Have your mouth empty when you drink water or a beverage.
7. Sip beverages. Do not gulp them.
8. Wait for a hot food to cool before eating it. Do not blow on it.
9. Dip a soup spoon into the soup with the bowl facing away from you. Do not fill the spoon completely. You may drink a clear, thin soup, such as bouillon or consomme, from the cup. Do not sip a creamed soup from a cup.
10. Break, rather than cut, bread or rolls before buttering them.
11. When there is a bread-and-butter plate, use it also for relishes, celery, olives, pickles, and for jam or jelly for your bread. Otherwise, place these foods on your plate.
12. Do not touch foods with your hands, except for finger foods. These include olives, celery, carrot sticks, potato chips, breads, rolls, most sandwiches, and corn on the cob. Do not pick up chicken with your hands unless you are at an informal picnic or supper.
13. Keep each food separate on your plate as you eat. Mixed foods look unappetizing to other people.
14. Remove fruit pits from your mouth with a spoon.
15. Remove a fish bone from your mouth with your fingers, and put it on the side of the plate.
16. If food particles get between your teeth, wait until you leave the table to remove the particles. Use a toothpick or dental floss in private.

17. Take a very small portion of unfamiliar foods; it is considered bad manners to refuse a food unless you are allergic to it.

18. Do not ask for seconds unless the food is on the table or unless it is offered.

19. You may refuse second offerings if you wish.

20. Do not put your hands on your hair or face while eating.

21. Taste foods before seasoning with salt, pepper, and condiments if you desire. Do not overdo.

C. Correct handling of table equipment

1. General guidelines

    a. Unfold the napkin and put it in your lap.

    b. Use the napkin to wipe or blot your mouth lightly.

    c. When you are not using your knife, place it across the top of the plate.

    d. Cut salads with a fork. Use a knife only when necessary.

    e. When you have finished using a spoon, leave it on a saucer, sauce dish, or soup plate.

    f. Serve yourself from a bowl or plate with the serving spoon or fork provided. Do not use your own flatware.

    g. Pass food that is in a serving dish with a handle so that the handle is toward the person to whom the dish is passed.

    h. Never play with the tableware or rearrange it.

    i. When you are finished eating, place your knife and fork in the center of your plate.

    j. At the end of the meal, leave your dishes in place on your cover. Do not push them away from you, and do not stack them.

    k. Before leaving the table, place your napkin to the left of your plate. It should not be folded, but it should be neat.

    l. When unsure of what to do, watch the host and follow his or her example.

m. Generally, use a spoon to eat foods served in a bowl, and a fork to eat foods served on a plate.

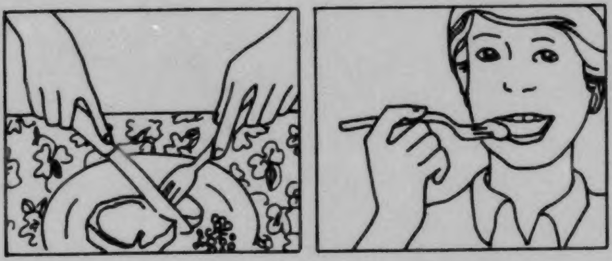
2. Styles of eating

a. Meat

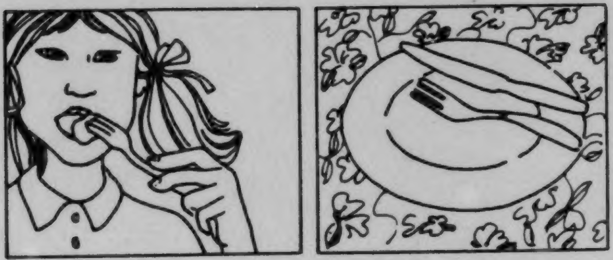
1) American - To cut meat, hold the fork in the left hand (if you are right-handed) with the prongs or tines pointed downward. Brace your index finger against the back of the fork. Stick the fork into the meat to hold it. Hold the knife in your right hand, with your index finger pointing along the back of the knife; cut across the meat. Never hold a knife or fork in your fist. Slide the meat off the fork with your knife. Cut only one or two bites at a time. Lay the knife down on your plate. Switch the fork to your right hand. Hold the fork like a pencil, with the tines upward. Stick the fork into the piece of meat or slide it under the meat to lift it up to your mouth.

2) European (Continental) - In this style, hold the fork in your left hand, but leave the fork in the left hand, tines downward, and lift the piece of meat to your mouth as soon as it is cut. You do not have to put the knife down. This saves time and avoids clanking of flatware but it takes practice. You may also eat vegetables this way.

American style



European (Continental) style



b. Salads - when salads contain large pieces of lettuce or greens, you may cut them with your fork or knife.

c. Bones or pits - remove them from your mouth with your fingers as inconspicously as possible.

d. Finger foods - these foods may be eaten with the fingers: raw vegetable sticks, olives, pickles, potato chips, rolls, corn-on-the-cob, cookies, sandwiches.

e. Whole lobster - first break it apart with the hands. Large chunks should be cut into smaller, bite-size pieces and eaten with a fork. Usually a cocktail fork is used. Chunks of lobster are often dipped in a butter sauce.

f. Chicken - at informal meals, fried chicken may be eaten with the fingers; at formal meals, chicken is eaten with a fork and knife. Any chicken served without the bones should be eaten with a fork. If you are not sure how to eat the chicken, do what the host or hostess does.

g. Fresh fruits - finger foods, but should not be eaten whole at the table. They should be cut into quarters or small sections before eating. Usually they are served with a fruit knife.

h. Whole artichoke - finger food. The leaves are removed, one at a time, from the outside. They are dipped in a sauce. Eat the soft edible portion of the leaf by placing it in your mouth and running the leaf between your upper teeth and your tongue. Afterwards, put the remaining part of the leaf neatly on your plate. The thistle-like inside part should not be eaten. Cut off the remaining bottom part ("heart") and cut into bite-size pieces to eat.

i. Breads, rolls, muffins and biscuits - finger foods. Sliced breads should be broken into quarters before buttering and eating; rolls, muffins and biscuits should be broken into halves before buttering and eating.

j. French fries - may be finger foods if served with hamburger, crisp chicken or other finger foods, but if eating a steak or other food with a knife and fork, use the fork for the French fries, too. Cut them into bite-sized pieces.

k. Cake and pastries - use a fork to eat cake or pastries such as cream puffs with soft frosting, whipped cream topping or filling. Cakes without soft frosting and non-sticky pastries are finger foods.

l. Bacon - very crisp dry bacon is a finger food; otherwise bacon is eaten with a fork.

3. Foods which require special techniques

    a. Spaghetti - take a small amount onto a fork and place tines against the bowl of a soup spoon. Then wind spaghetti into a ball.

    b. Whole baked potato - use fork and fingers or knife to open the potato, then add butter or sour cream; eat the potato with your fork. Do not scoop the potato onto your plate. You may cut up the skins with fork or knife and eat them. If the foil has not been removed from the potato, push back with your fingers or remove entirely and crumple and place at side of plate.

VII. Dining Out

A. Importance of dining out (AS 11)

1. People have less time to cook.

2. People value restaurants as places to relax and spend leisure time.

3. Restaurants provide a comfortable place to do business.

4. Provides a form of entertainment

5. People away from home (jobs, travel, shopping, etc.) need to eat out.

B. Types of eateries to select from

1. Quick food (usually less expensive)

    a. Fast food chain - provides quick, sanitary meals of consistent quality; relatively inexpensive; menus posted above counter; menus are limited; tables may or may not be provided; pay when ordering; foods may be high in calories and sodium.

    b. Cafeteria - quick; customer walks past foods that are grouped by courses; all foods are individually priced and are posted; pay cashier at end of line or at exit.

    c. Coffee shops - have limited menu; have table and/or counter seating; customer chooses seat, is handed menu; food is brought to customer. Pay cashier when leaving.

    d. Delicatessen - purchase prepared foods in quantities desired; some have eating area; menus posted above counter.

C. Family restaurants (moderate prices)

1. Sit down meals - moderate price; more formal than quick food restaurants, but less formal than "luxury" restaurants; order from menu; pay cashier

2. Smorgasbord - diners pick up a plate and take as much as they want of each item on the table; moderate price; sit-down eating

D. Luxury restaurant - expensive; has maitre d'hote, headwaiter or hostess; may have a dress code specifying what customers should wear (ex. men must wear a tie and jacket); may serve alcoholic beverages, may have musical entertainment; order from menu (prices may not be listed); usually pay waiter or waitress after check is brought to table

VIII. Guidelines for dining in a restaurant (AS 12)

A. Making a reservation

1. Some restaurants serve customers on a first-come, first-served basis, and no reservation is required.

2. Some restaurants require reservations, especially during certain busy periods; for other restaurants, a reservation is optional but will insure less waiting when you arrive.

3. To make the reservation, call the restaurant ahead of time, give your name, the number of people in your party, and the time of your arrival.

B. General restaurant etiquette guidelines (TM 7)

1. Leave coat in a coat room if one is provided. Women may take their coats to the table and drape them over their shoulders or chair.

2. Do not place personal belongings on the table; place purses, gloves, packages, etc. on the floor or an empty chair where you can watch them.

3. Do not check your grooming at the table.

4. Place your napkin on your lap only after you have ordered from the menu.

5. Motion discreetly with your hand or eyes if you need service.

6. Talk quietly so that persons at other tables will not be bothered by your conversation.

7. Excuse yourself if you leave the table.

8. When entering the dining room, wait before finding a table to see if there is a headwaiter or hostess to seat you.

9. If a headwaiter or hostess escorts you to a table, women go first and men follow; otherwise men lead the way and women follow.

10. Some restaurants have smoking and non-smoking sections; ask for the appropriate section.

11. Wait until everyone at the table is served before you begin to eat.

12. If you drop flatware, do not pick it up; ask the waiter or waitress for another piece.

13. Wrappers from sugar packets can be left on the tablecloth.

14. Any complaints should be made quietly but firmly to the waiter or headwaiter by the host of your party.

15. Do not "table-hop".

C. Menu style

1. a la carte - each item is listed and priced separately.

2. table d' hote - means "from the hosts table;" usually lists the price after the entree but the price includes the complete meal; sometimes referred to as a dinner menu.

3. combination - some menus have both a la carte and table d' hote items.

D. Menu language (AS 13 and 14)

1. a la king - served in a cream sauce with mushrooms and green pepper or pimiento

2. a la mode - served with ice cream, as in pie a la mode, or braised with vegetables, as in boeuf (beef) a la mode

3. a la Provencale - prepared with garlic and olive oil

4. anchovy - small fish of herring family

5. antipasto - the Italian word for assorted appetizers

6. amandine - made or garnished with almonds

7. appetizer - a premeal snack to stimulate the appetite

8. au gratin - sprinkled with buttered bread crumbs or grated cheese and baked or broiled until brown

9. au jus - served with natural juices or gravy - usually refers to beef

10. au lait - served with milk

11. bearnaise - a sauce made with egg yolks, butter, wine, and herbs - usually served with grilled or sauteed meats or fish

12. beurre - butter

13. brochette - broiled on skewers

14. bisque - a rich cream soup, usually made with lobster or shrimp; can also be made with pureed vegetables

15. borscht - beet soup, served hot or cold

16. bouillabaisse - fish stew containing several kinds of seafood simmered in seasoned stock

17. caesar salad - greens with croutons, garlic, parmesan cheese, eggs, and anchovies

18. cafe au lait - French-style coffee made by pouring together hot coffee and hot milk.

19. caviar - salted fish eggs

20. chateaubriand - thick beef tenderloin steak

21. chef's salad - a salad of greens and strips of ham, cheese, chicken, or turkey

22. chowder - a rich thick soup with seafood and vegetables

23. club sandwich - variety of meats, cheeses, lettuce, and tomatoes placed between three slices of toast

24. cobbler - fruit pie with top crust only

25. continental breakfast - roll, juice, coffee

26. crepe - a thin pancake. When filled with creamed meat or poultry it is served as an appetizer or entree. Dessert crepes are usually filled with fruit.

26. crouton - small square of toasted bread

27. cutlet - a thin piece of meat, usually boneless

28. demitasse - a small coffee cup or coffee served in such a cup

29. du jour - specialty of the day, as in soupe du jour

30. eggs benedict - poached eggs topped with hollandaise sauce and placed on slices of ham or Canadian bacon atop English muffin halves

31. escargot - French for snails. Snails are usually served as an appetizer. They are broiled in a garlic and butter sauce.

32. encoquille - served in a shell

33. entree - main course

34. espresso - an after dinner coffee, made from special beans and prepared in a special pot

35. filet - boneless cut of beef, veal, mutton, pork, or fish

36. filet mignon - a small tender steak which comes from the beef tenderloin

37. flambe - served flaming

38. florentine - served with spinach

39. gazpacho - a cold soup originating in Spain. Made from tomato juice and served with chopped raw vegetables.

40. glace - coated with a thin sweet syrup

41. hollandaise - a rich sauce made with egg yolks, butter, and seasonings. Often served with vegetables and fish.

42. hors d'oeuvre - appetizers

43. Irish coffee - sweetened coffee combined with Irish whiskey and topped with whipped cream

44. jardiniere - garnished with mixed vegetables

45. lyonnaise - served with cooked onion

46. macedoine - a mixture of finely cut fresh fruit or vegetables.

47. marinara - refers to food served with a spicy Italian tomato sauce

48. marinated - soaked in a pungent mixture usually containing vinegar, wine, or lemon juice and herbs

49. meuniere - sauteed in butter or margarine

50. mornay - served with a cream sauce that contains cheese

51. mocha - coffee and chocolate mixture

52. mousse - a rich dessert made with whipped cream and beaten eggs. Can also refer to meat or fish which has been ground fine and molded.

53. newburg - served in a cream sauce made with eggs; often used with seafood

54. papillote - cooked in paper

55. parfait - ice cream served in tall, stemmed glasses with fruit or sauce

56. parmegiana - food made or seasoned with parmesan cheese

57. pate - the French word for "paste", usually made with ground meats which are seasoned, baked, and then served cold as an appetizer

58. petit four - small iced cake

59. pilaf - rice cooked in broth and seasonings

60. quiche lorraine - pastry shell filled with cheese, bacon, and custard and baked

61. scampi - a variety of shrimp which is broiled or sauteed in butter, usually with garlic

62. Spanish omelet - omelet filled with chopped peppers, tomatoes and onions

63. strudel - rich, flaky, pastry, often filled with fruit

64. teriyaki - refers to a Japanese cooking style in which food is marinated in a soy sauce mixture and then grilled or broiled

65. vinaigrette - an oil and vinegar sauce which is served with salads and cold vegetables

66. vichyssoise - potato and leek soup garnished with chives and usually served cold

67. waldorf salad - diced apples, celery, chopped nuts and mayonnaise

E. Ordering

1. Base choice on the amount you can spend, nutritional value and your appetite.

SAMPLE MENU OF FRENCH CUISINE

Hors d'Oeuvres

Avocat Farci (Avocado Stuffed with Crab)
Terrine de Canard (Pate of Duckling)
Cocktail de Crevettes (Shrimp Cocktail)
Escargots Bourguignonne (Snails in Garlic Butter)
Huitres Cheminee (Baked Stuffed Oysters)
Palourdes Farcies (Baked Clams Alfredo)

Soupes

Soupe a l'Oignon (Onion Soup Gratinee)
Bisque de Homard (Lobster Bisque)
Vichyssoise (Cold Potato and Leek Soup)
Soupe du Jour (Chef's Soup of the Day)

Salades

Salade Caesar
Salade d'Epinard (Spinach Salad, Paprika Dressing)
Salade Vinaigrette
(Mixed Green Salad, Classic French Dressing)

Poissons

Sole Amandine (Dover Sole with Almonds, Sauted)
Turbot Poche (Poached Turbot, Sauce Hollandaise or Choron)
Homard a l'Americaine (Lobster in Brandy Sauce)
Cuisses de Grenouilles Beurre et Ail
(Frog Legs, Sauted, Butter Garlic Sauce)

Volaille

Coq au Vin A L'Ancienne (Chicken in Red Wine)
Canard a l'Orange Flambe
(Roast Duck in Orange Sauce Flamed in Brandy)
Pigeonneau Farci
(Cornish Hen Stuffed with Fois Gras and Wild Rice)

Veau

Veau Marsala (Veal Scaloppine, Marsala Sauce)
Veau Florentine (Veal with Spinach in Cream Sauce, Glazed)
Veau Francaise Gloria (Veal with Garlic, Butter, Capers)

Viande

Boeuf Wellington
(Tenderloin in Pastry Crust, Sauce Perigueux)
Steak au Poivre (French Pepper Steak,
Madagascar Sauce, Flamed in Brandy)
Cotes d'Agneau (Broiled Lamb Chops)
Entrecote Grillee (Broiled Sirloin Steak)
Tournedos Rossini (Beef Tenderloin served with Foie Gras)
Tournedos Bearnaise (Filet Mignon with Bearnaise Sauce)

Legumes

Asparagus Spears (Hollandaise Sauce)
Broccoli (Hollandaise Sauce or Butter)
Brussel Sprouts (Saute)
Cauliflower (Gratine)

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2. Select main dish first, then foods to accompany.

3. The dessert is usually ordered after the main course dishes are cleared from the table.

4. Ask the waiter or waitress if you are not sure of menu terms.

5. A female with a male escort may tell her choices to her escort, who in turn gives both orders to the waiter or waitress. This custom is changing, however. Many females place their own orders.

6. Try not to change your mind after you have ordered.

7. If you are a guest and unsure of your host's or hostess's budget, ask them to suggest an item.

8. Let the waitress or waiter know if separate checks are desired ("Dutch Treat" dining).

F. Paying the bill and tipping

1. At the end of the meal the waiter or waitress puts the bill face down on the table.

2. Decisions about who is paying the bill should be made before ordering.

3. The host or hostess checks the bill briefly for correctness. Any errors should be discussed quietly with the waiter or waitress.

4. In more casual restaurants, the bill is usually paid to the cashier when leaving.

5. In more formal restaurants, the bill is usually paid to the waiter/waitress.

6. A tip (gratuity) is left at the table to reflect the quality of the service.

7. In most cases, the customer decides how much to leave as a tip - usually between 15-20% of the bill before tax is expected. (NOTE: Sometimes, especially for group dinners, the tip is added to the total bill).

8. Never leave less than a dime as a tip, even if the bill is small; do not leave pennies, which represent an insult.

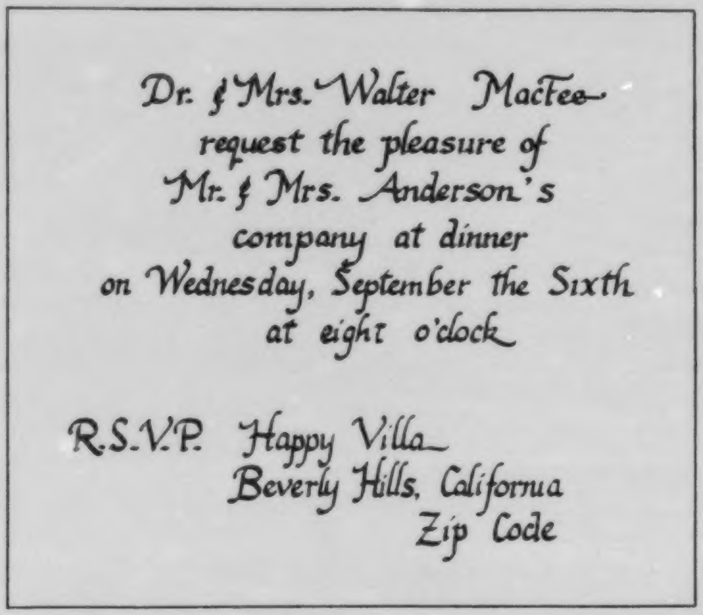
9. In cafeterias or fast-food restaurants where no table service is provided, no tip is necessary.

10. In formal restaurants, the maitre d' hote might be given a tip if special service has been given.

HO 1

EXTENDING A FORMAL INVITATION

Handwritten Invitation to a Formal Dinner. The formal written invitation may be written on any personal formal writing paper, usually white; if the stationery does not have the address at the top, it is written at the bottom, under the time. A telephone number is never used for formal invitations.



Dr. & Mrs. Walter MacFee
request the pleasure of
Mr. & Mrs. Anderson's
company at dinner
on Wednesday, September the Sixth
at eight o'clock

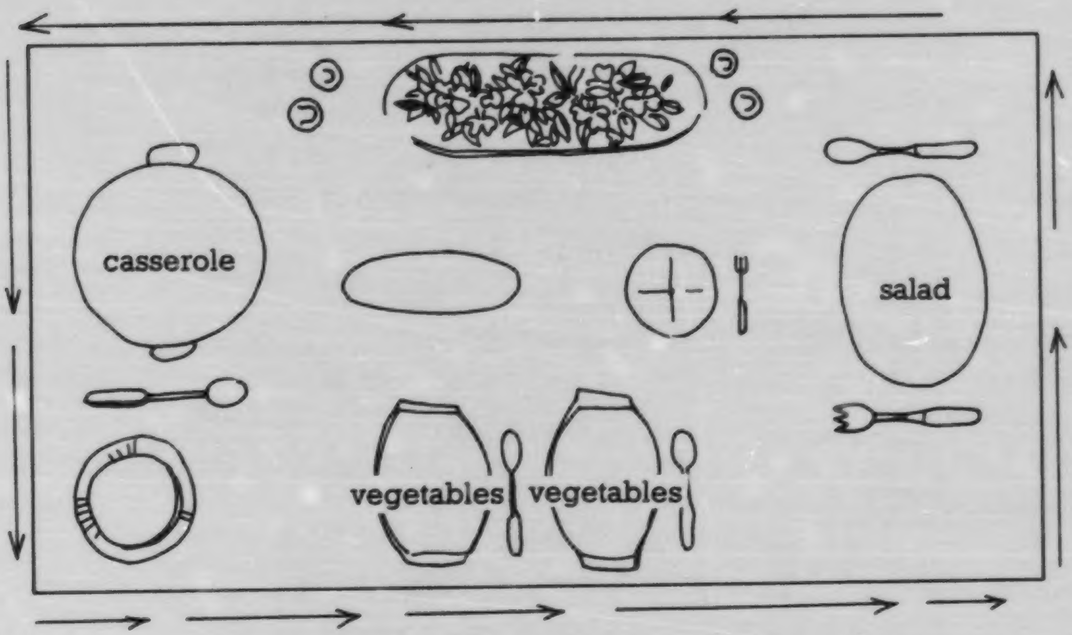
R.S.V.P. Happy Villa
Beverly Hills, California
Zip Code

When an invitation that asks for a reply is issued well in advance, the host/hostess is justified in sending out small reminder cards or telephoning those people who have neglected to respond. Most conservatively, such invitations are on white but are sometimes engraved on colored paper and in contrasting inks, such as green on gray.

Mr. and Mrs. Elliott Harrison
request the pleasure of your company
at dinner
on Friday, June the fifteenth
at eight o'clock
250 Park Avenue
New York, New York zip code

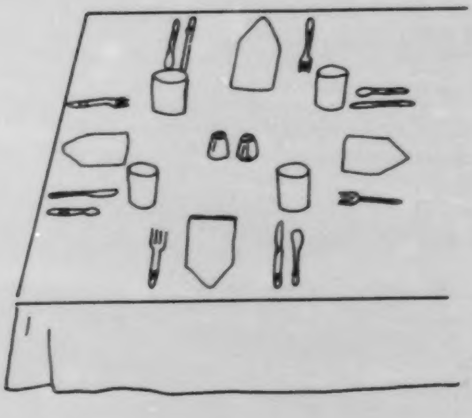
RSVP

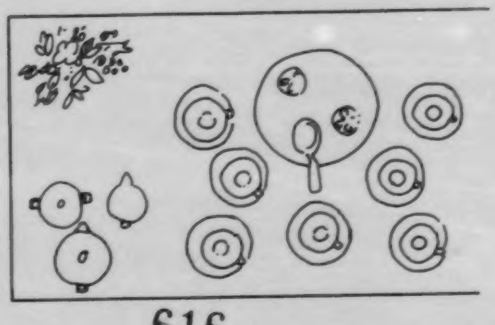
PLACEMENT OF ITEMS FOR SERVING A BUFFET



Food for a buffet should be placed on the table in the order in which it is to be selected. For example: The main dish should be near the plates (as shown at the left.) The vegetables should be placed next (center) with bread and relishes above them, and the salad should be placed last (see right). Here the guests serve themselves as they progress in one direction around the table, as shown by the arrows.

Card tables might be set up with individual covers for the convenience of the guests (left), and the beverage might be placed on a side table so the guests may help themselves (right).



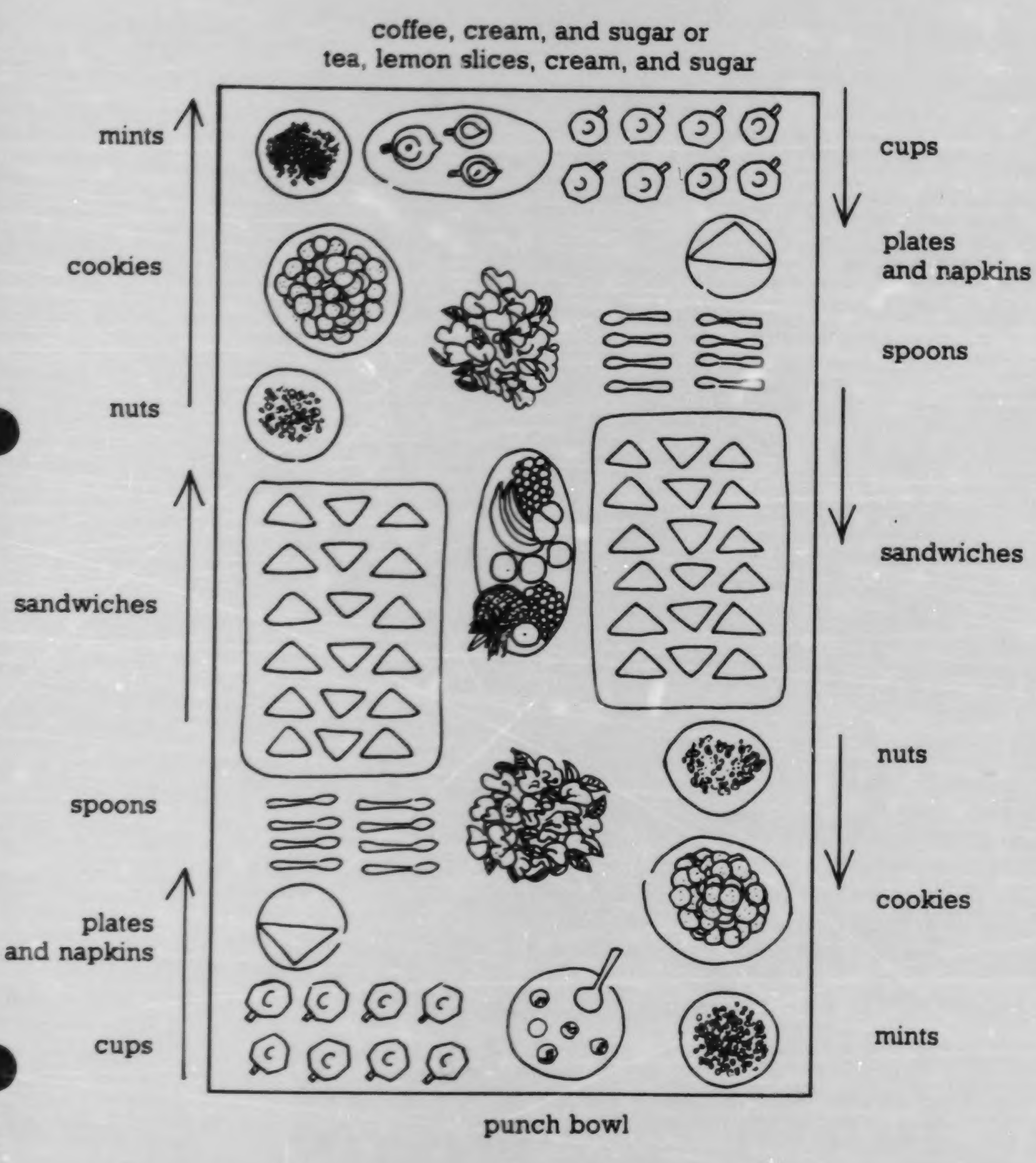


HO 3

PLACEMENT OF ITEMS FOR SERVING A RECEPTION

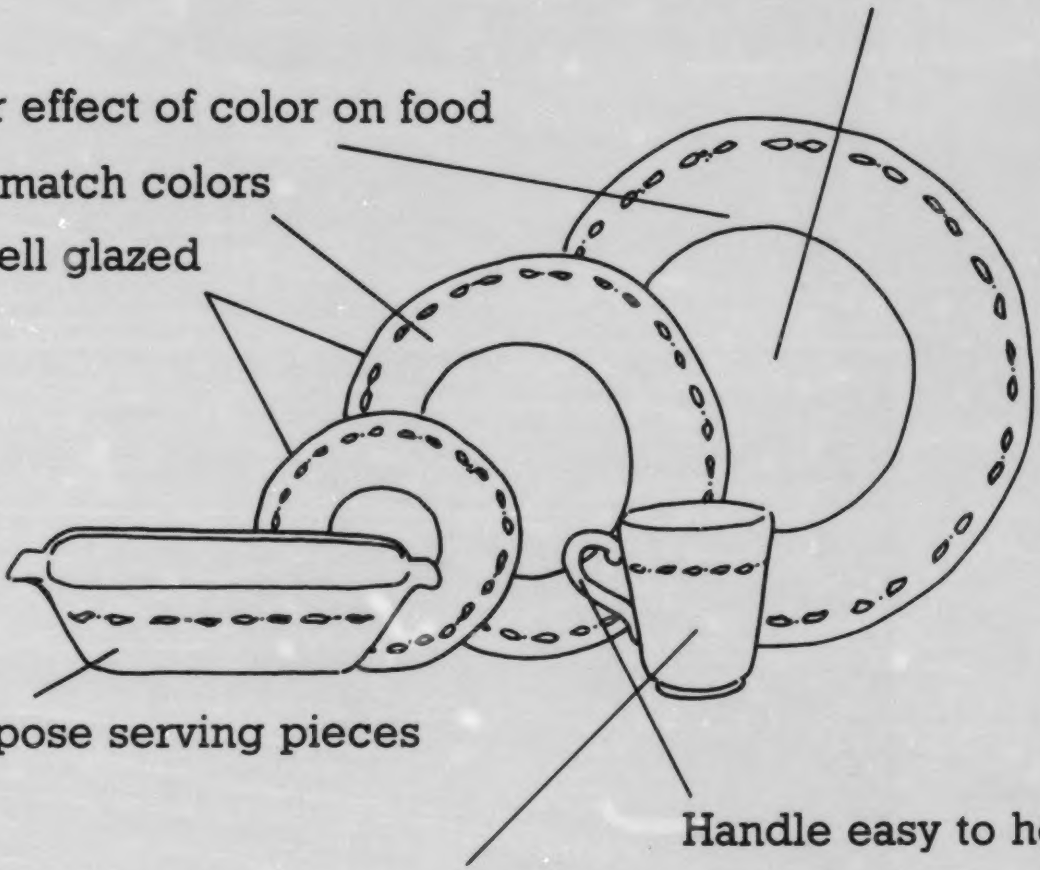
At a reception guests usually stand while eating (although chairs and/or tables may be provided if space permits).

Reception Table


coffee, cream, and sugar or
tea, lemon slices, cream, and sugar
mints
cookies
nuts
sandwiches
spoons
plates and napkins
cups
cups
plates and napkins
spoons
sandwiches
nuts
cookies
mints
punch bowl

TM 1

Selecting Dinnerware



Dishwasher proof

Consider effect of color on food

Mix and match colors

Edges well glazed

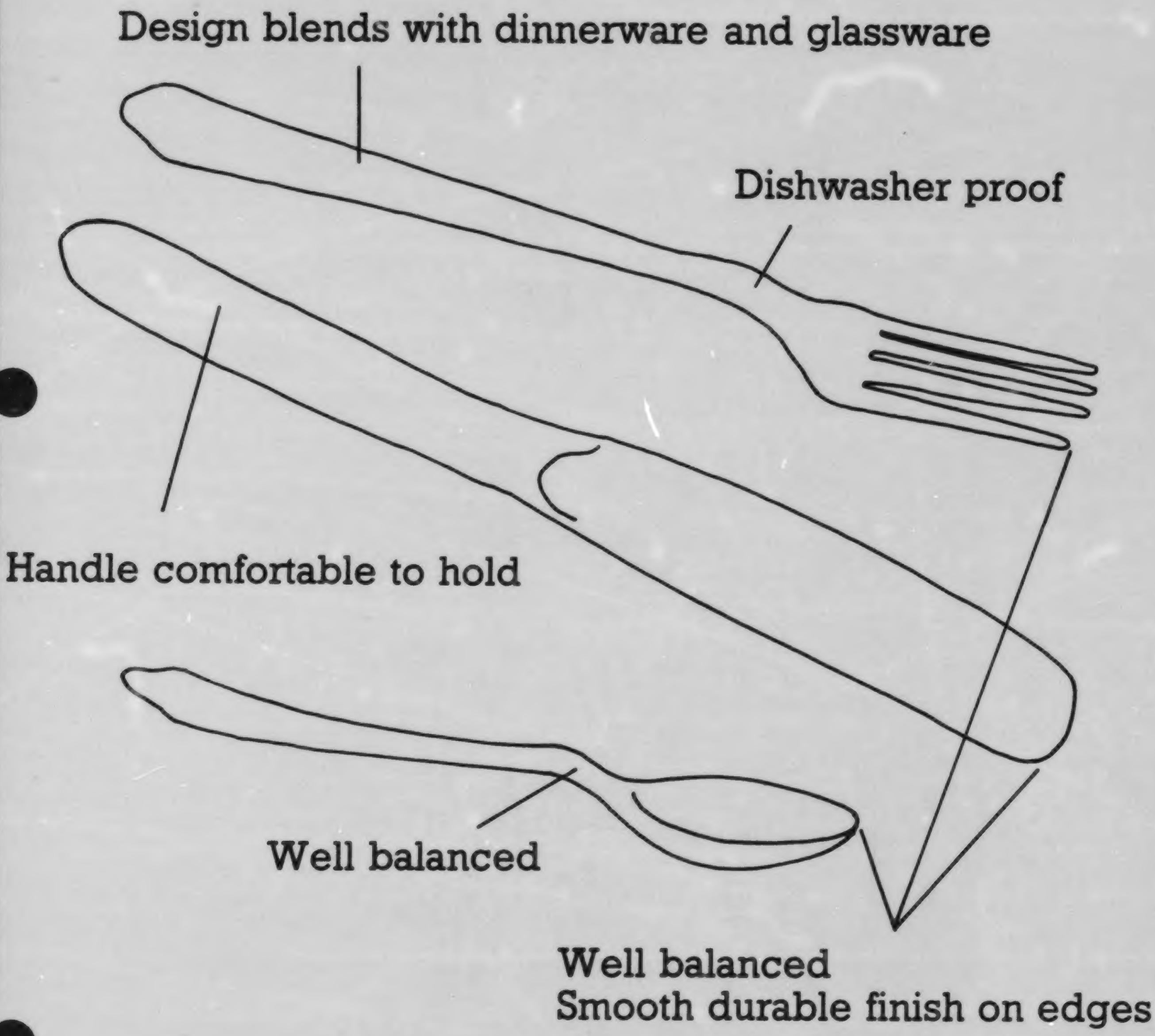
Dual-purpose serving pieces

Handle easy to hold

Cup shape that will keep coffee warm

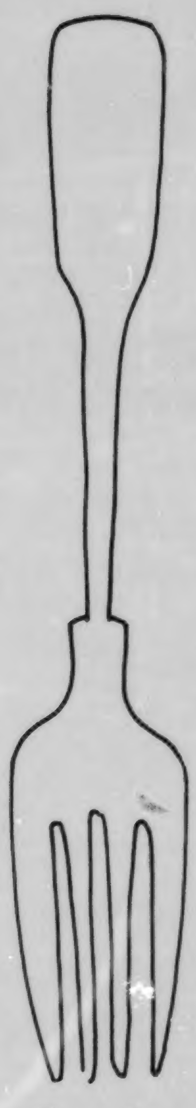
TM 2

Selecting Flatware

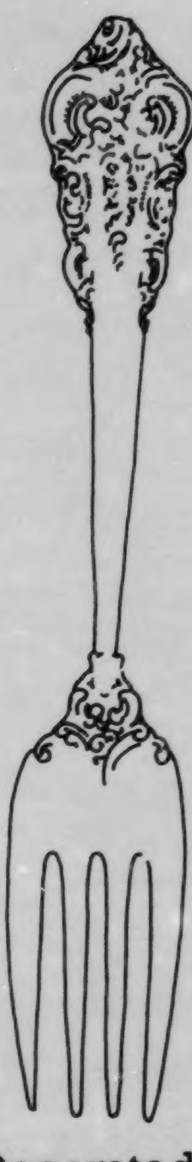

Design blends with dinnerware and glassware
Dishwasher proof
Handle comfortable to hold
Well balanced
Well balanced
Smooth durable finish on edges

TM 3

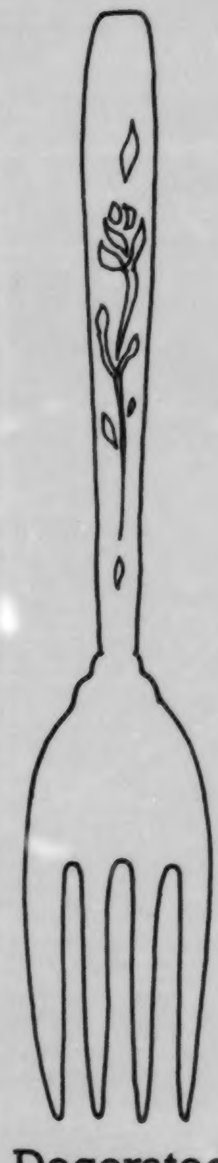
Styles of Flatware



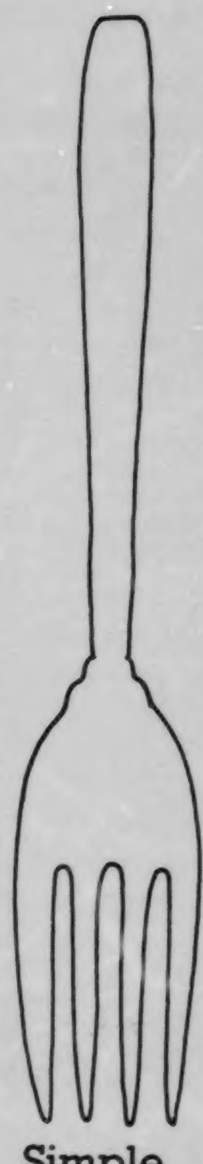
Simple Traditional



Decorated Traditional

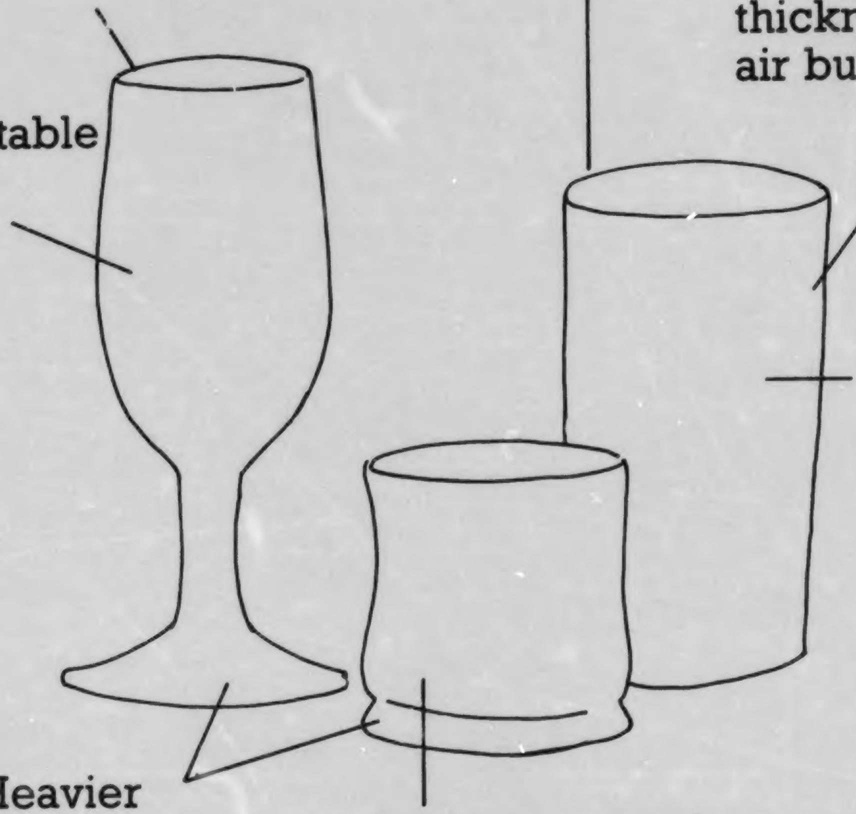


Decorated Contemporary



Simple Contemporary

Selecting Glassware



Smooth, safe rim
Comfortable
to drink from

Type of storage space required

No irregularities of
thickness on sides,
air bubbles, seams,
etc.

Comfortable
to hold

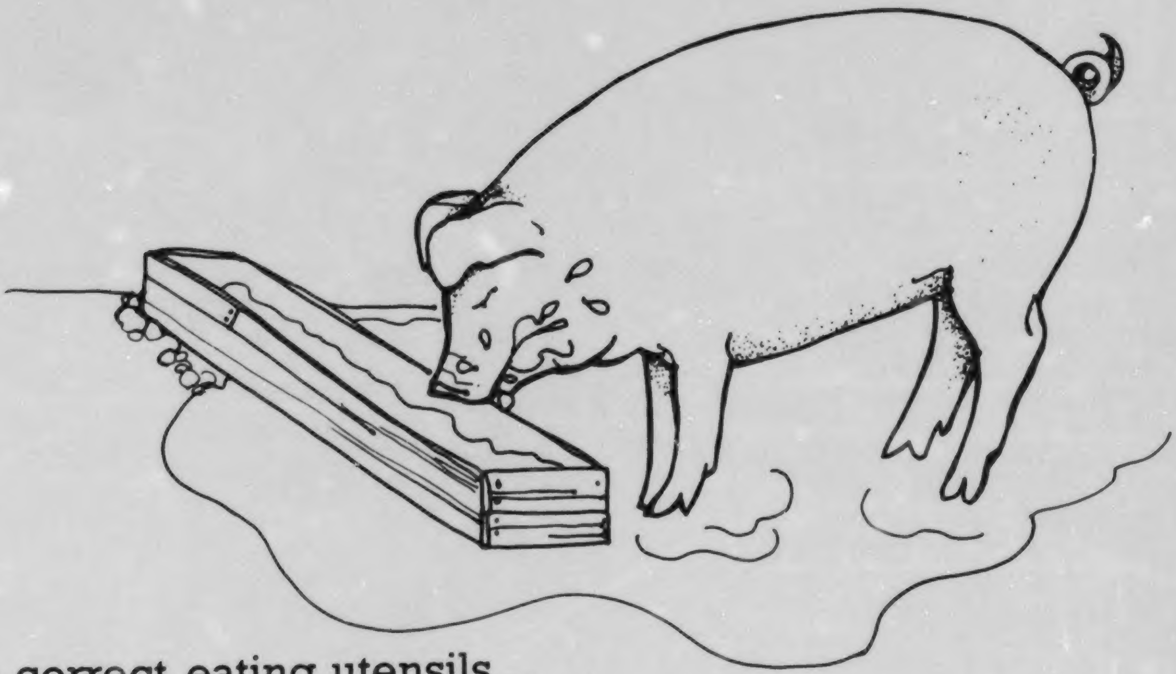
Mix and
match colors

Heavier
at base

Dual-purpose pieces

Well balanced

How Are Your Table Manners?



Use correct eating utensils

Place napkin on your lap

Wipe mouth with napkin when needed

Don't blow hot foods

Don't hold fork like a shovel

Keep others' needs in mind

Serve yourself using the serving spoon provided

Sit up straight

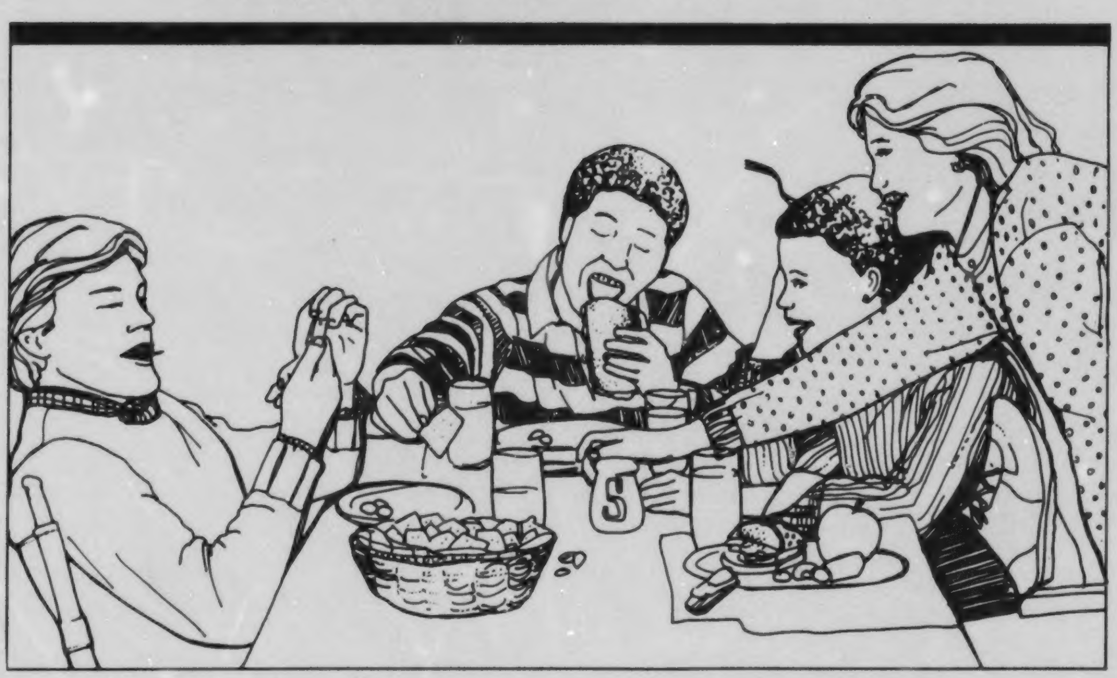
Be neat and clean when you come to the table

Keep elbows near side

Your Manners Are Showing... At Home

Do your table manners look like theirs?

When you least expect it, poor table manners can embarrass you! These guys and girls could be you and the crowd having a great time eating together at home or out at a restaurant. But look closer...their manners are showing.



Grabbing something from someone else's plate is rude. Odds are he'll hit that glass of milk, too! And he'll get a real mouthful when he tries to take such a big bite of his hero!

Yuk! Olive pits on the table? Gross! Keep food on the plate not on the tablecloth. It looks neater and makes cleanup easier.

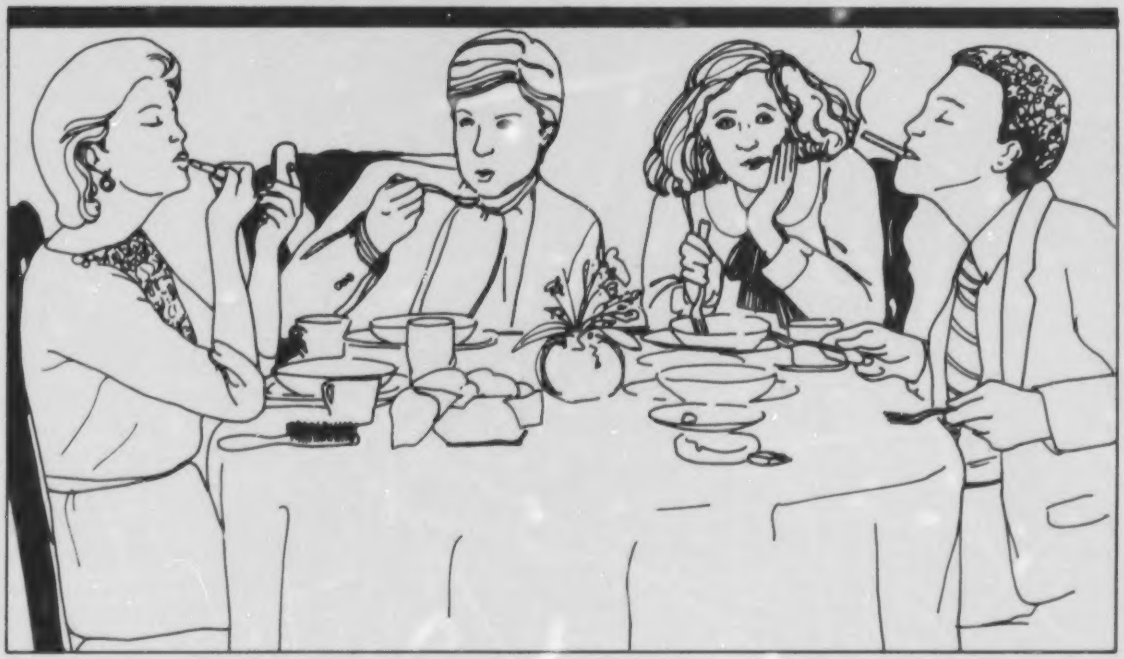
Don't elbow your partner. Ask someone to pass the food instead. And waving a fork around won't really make your point any clearer.

It's not scent-sational to sit next to this guy's propped-up foot!

Your Manners Are Showing... When You're Out

Do your table manners look like theirs?

When you least expect it, poor table manners can embarrass you! These guys and girls could be you and the crowd having a great time eating together at a restaurant. But look closer...their manners are showing.



What's worse than a hair in your soup? A brush on the table! Save primping for the privacy of a restroom.

No need for a bib. As soon as you're seated in a restaurant, unfold your napkin and place it neatly on your lap.

Soup too hot? Allow a few minutes for it to cool. Blowing on it could splash your date and blow your cool.

A spoon is really needed here. Clutching a fork with your fist is no way to pick up the vegetables in your soup.

This guy's doing everything wrong! With his plate pushed away from him and his napkin bunched up, he's drumming on the table with his silverware. Mind if he smokes? It looks like his date minds, but he probably never asked! And a bread-and-butter plate is no place to park his chewing gum!

UNIT VIII: MEALS FOR FAMILY AND SPECIAL OCCASIONS

ASSIGNMENT SHEET #1: FAMILY MEAL PLANNING

Directions: Using the meal patterns chart for family meals given in Section II and the guidelines for menu planning in Home Economics I - Basic Core "Meal Planning and Table Service", plan appropriate menus for a light, medium, and heavy breakfast, lunch, and dinner in the space below.

Light	Medium	Heavy
Breakfast		
Lunch		
Dinner		

STUDENT/TEACHER EVALUATION

ASSIGNMENT SHEET #1: FAMILY MEAL PLANNING

Directions: Place a check in the box at the right when guidelines are met.

Breakfast **Lunch** **Dinner**
(L=Light, M=Medium, H=Heavy)

	L	M	H	L	M	H	L	M	H
I. Followed pattern appropriately Comments:									
II. Written in correct menu form Comments:									
III. Includes foods from the basic food groups Comments:									
IV. Shows variety of: A. Color Comments:									
B. Shape Comments:									
C. Texture Comments:									
D. Temperature Comments:									
E. Method of Preparation Comments:									

UNIT VIII: MEALS FOR FAMILY AND SPECIAL OCCASIONS

ASSIGNMENT SHEET #2: Family Eating Habits

Directions: Read the information below from "Family Eating Habits" from Current Lifestyles Magazine. Answer the questions below to be used for class discussion.

Dr. Paul Fine, a psychologist who conducts market research for major food manufacturers, has discovered that instead of traditional sit-down meals, the majority of American families eat their way through a series of meals on the run. Breakfasts are usually either ignored or snatched, sometimes eaten standing up, and in the car or bus, etc. For everyone except some preschoolers, lunch is eaten away from home and the evening meal has become a catch-as-catch-can affair, usually with one or more family members missing. Families eat together at dinner only two to three days a week and even then the meal is usually over in 20 minutes. The typical pattern today is family meals from time to time and a continued round of snacking. Reasons probably include the fact that both men and women are spending more time and energy with careers, and children have tight extracurricular schedules.

March 1981 Current Lifestyles Magazine "Family Eating Habits"

1. Do you agree that this is the pattern of eating in most American homes today? Why or why not?

2. How closely does your family follow this pattern?

3. In what ways is this pattern bad?

4. Does this pattern have any good aspects? Explain.

5. If this is the current trend, why should we learn traditional patterns of meal planning?

6. What does this mean for today's and tomorrow's homemakers?

Family Eating Habits

YOU & THE FAMILY

"When people eat, they don't nourish just their bodies, but also their appetites, their hearts, their memories."

–Jean Tremolieres, French nutritionist

When most of us think of family meals, we tend to picture a scene from a Norman Rockwell painting or The Waltons: a family gathering with an heirloom tablecloth of creamy damask; abundant platters of picture-perfect food; and all around the dining room table, stimulating, even witty, conversation.

While we may be quite convinced that's the way every family but our own eats, studies show that this idealized image of the family meal is simply not the way things are at most household dinner tables.

Dr. Paul Fine, a psychologist who conducts market research for major food manufacturers, has discovered that instead of traditional sit-down meals, the majority of American families eat their way through a series of meals on the run.

Breakfasts are usually either ignored or snatched, sometimes eaten standing up, as parents hustle off to work and kids off to school. For almost everyone except some preschoolers, lunch is eaten away from the home. And even the evening meal has become a catch-as-catch-can affair, usually with one or more members of the family missing.

"We like to think that at least families eat dinner together," says Fine, "but I have found that this may actually happen only two or three days a week, and even then the meal may be over in 20 minutes. The typical pattern today is family meals from time to time and a continual round of snacking."

It isn't hard to understand the reasons for this new pattern. More women are spending their time and energy in offices instead of kitchens. Men, too, are often caught in time-consuming career crunches. And teenagers have extracurricular schedules so tight that a full-course family meal simply can't be squeezed in.

"Of course," says Dr. Fine, "this pattern isn't good or bad in itself." It all depends on what you make of it.

What most families make of a small amount of time and a large number of diverse commitments is a Big Mac here, a frozen pizza there, anything else that can be cooked in a microwave, with snatches of conversation sandwiched in between. Yet, at the same fast-paced time, most families still cling to the idealized version of the warm and relaxed family dinner.

"There's no way around it," says Maria Vetrano, a clinical social worker in a Chicago mental health center. "We don't just eat food as nourishment, we eat it as various symbols."

That's the reason we like to eat certain, though not particularly nourishing, foods when we're sick (we think of them as comforting) and certain foods when we're feeling romantic (we think of them as sensual or representing affection). "And for most people," Vetrano continues, "food is love. For some people, it can be delightful, romantic, warm–and it can also be smothering."

Adolescent behavior experts agree that the member of the family most likely to feel smothered by family meals is the teenager. "The whole time we're growing up, food is used as an area of control," says Vetrano. "It's 'No, you can't do that until after dinner,' or 'Eat all the food on your plate,' or 'You can't get up until you taste the rutabaga.'" Since one aspect of being a teenager is to define oneself and to start to develop one's own life, Vetrano

Family Eating Habits (cont'd)

continues, it's not surprising that eating is often an area of conflict in a family.

Many experts agree that, for teenagers, rebellion against established eating patterns takes place in three different ways.

- **Experimenting with food.**

This could also be called the weird food syndrome. "There is no doubt that teenagers like to experiment with food," says Fine. "They go on reducing diets, they become vegetarians, they get into health foods." All of this experimenting is part of the process of defining oneself. It may also contain an element of rebellion. This seems probable when a random informal survey of 12 high school students showed that half of them were temporarily indulging unusual eating habits: one person ate only raw foods, another ate only cooked vegetables, someone else wanted nothing but meat and eggs, someone else ate pizza almost exclusively, one was fasting, and another was "dieting" on grapes and ice cream.

"Nothing can set a parent's teeth on edge faster than seeing his or her child sit down to a dinner of grapes and ice cream," says Vetrano, "and don't think the teenager doesn't know this."

This behavior is usually just a normal way of asserting yourself. But, Vetrano cautions, "healthwise, there is a point where this kind of self-assertion can't be tolerated."

- **Experimenting with conversation.**

Experts agree that one reason why family meals can be difficult is the simple fact that it's one rare time when people get together and talk. "It can be one of the most stressful times together," says Vetrano, "because, by definition, teenagers are testing out ideas and ways of self-expression. These expressive ideas most often get tested against the parents who end up imploring, 'Why can't we have a nice dinner conversation?' It's a real conflict of interests, with no one being right or wrong."

Also, all too often family meals become battlegrounds between brothers and sisters, with parents having to run interference. But this, too, is considered normal and even healthy in some ways. "These days, meals are the closest most families come to holding meetings," says Vetrano. It can be the only way you have to air a grievance."

- **Experimenting with time.**

Adolescents are involved in setting up a network of friends and interests. It's only natural that such interests--like football practice or play rehearsal--will, at times, conflict with established family mealtimes. Also, it can be a heady experience to discover that there doesn't have to be any set recognized mealtime. "The freedom to eat when you want is liberating," say Vetrano. "Often teenagers tend to go overboard-eating meals at all kinds of strange hours. But after they've indulged this freedom to call their own shots, they usually start to synchronize their mealtimes with the rest of the world's."

Some people are discovering that the family that eats together might prefer not to. One such family, the Delzells of Minneapolis, discovered that because of various family schedules and activities, it became almost impossible to plan daily meals together. "Oh, sure, we could make it possible with long-range planning, sacrifice of individual interests, sophisticated schedule juggling, or if need be, force," says Mrs. Delzell. "But all that came of it when we tried was strong resentment on the kids' part, added pressure on my husband, and frustration for me."

Their solution was to abandon the concept of family meals, except for special occasions. Each family member now cooks for himself or herself. The result has been that everyone, to varying degrees, has become proficient around the kitchen. But the genuine bonus is, as Mrs. Delzell says, that "we have more time to spend together--though not at meals--and we're all more relaxed."

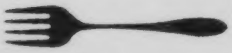
This solution may not be for everyone, but then perhaps neither is the Normal Rockwell version of the family meal. "The important thing to remember," says Vetrano, "is that meals should be a reflection of the people eating them. If you can make them personal--and therefore flexible--everyone will get nourishment out of them in more ways than one."

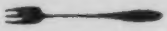
UNIT VIII: MEALS FOR FAMILY AND SPECIAL OCCASIONS

ASSIGNMENT SHEET #3: TABLE SERVICE MATCH-UP

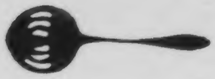
Directions: Identify these flatware serving pieces and their uses. Each serving piece illustrated in Column A is identified by name in Column B and its use is described in Column C. Match up each piece illustrated with its name and uses by writing the number that appears in Column A in the appropriate blank in Column B and in Column C.

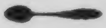
COLUMN A

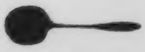
1. 

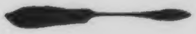
2. 

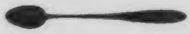
3.

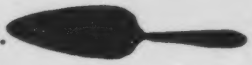
4. 

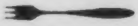
5. 

6. 

7. 

8. 

9. 

10. 

COLUMN B

___ gravy ladle

___ flat server

___ butter serving knife

___ iced beverage spoon

___ cold meat or buffet fork

___ pie or cake server

___ sugar spoon

___ cocktail or oyster fork

___ olive or pickle fork

___ demitasse spoon

COLUMN C

___ teaspoon with long handle for parfaits and iced beverages in tall glasses

___ also for serving cheese, spreads, hors d'oeuvres, certain jams, jellies

___ for serving cold meats, chops, salads, tomatoes, broccoli, asparagus, cucumbers, eggs

___ also for serving pastries, frozen desserts, fish cutlets, waffles, aspics, meat loaf

___ also for serving sauces, salad dressings, punch, soups, stews, creamed dishes

___ also for serving relishes, lemon slices, butter pats, garnishes

___ small, slender fork for seafood appetizers

___ tiny spoon for coffee in demitasse

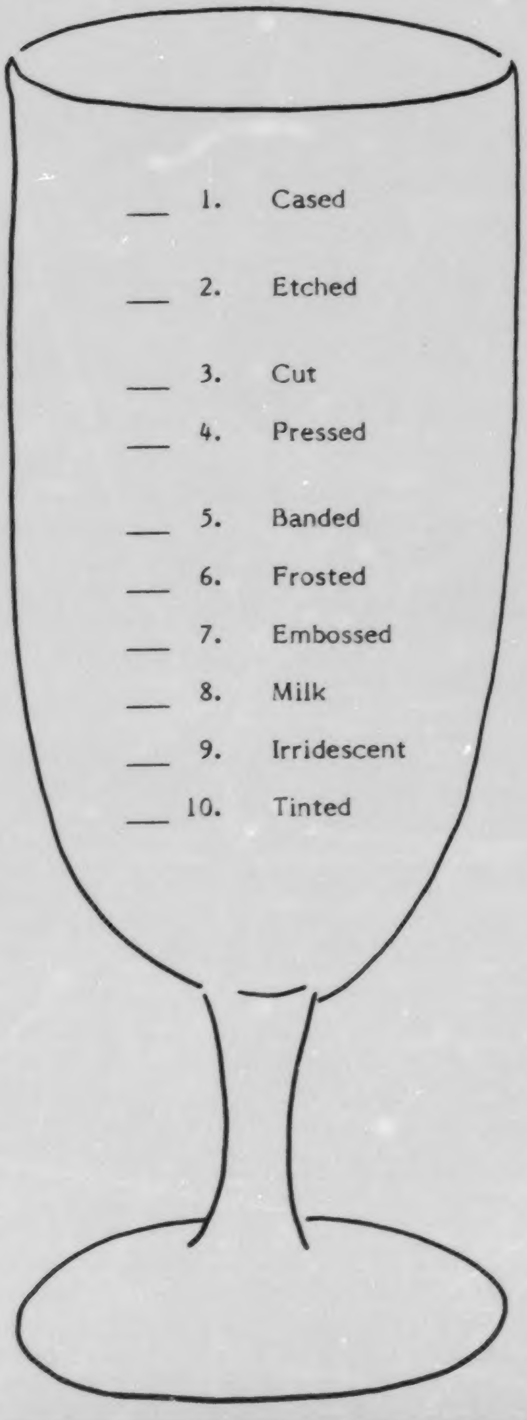
___ fork for serving sliced meats, chops souffles, fried chicken, sliced tomatoes, cheese, platter salads

___ also for serving relishes, preserves, nuts, jams, sauces

UNIT VIII: MEALS FOR FAMILY AND SPECIAL OCCASIONS

ASSIGNMENT SHEET #4: KNOW YOUR GLASSWARE DESIGN

Directions: Match the correct description on the right to the glassware design on the left by placing the correct letter in the blank.



___ 1. Cased

___ 2. Etched

___ 3. Cut

___ 4. Pressed

___ 5. Banded

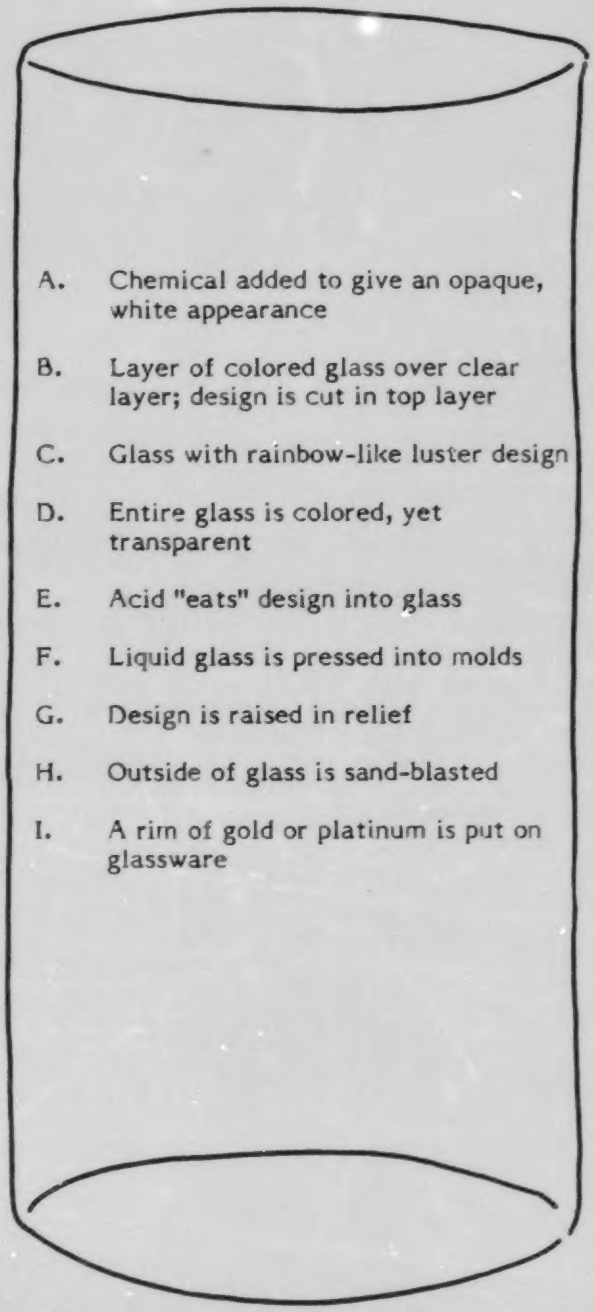
___ 6. Frosted

___ 7. Embossed

___ 8. Milk

___ 9. Irridescent

___ 10. Tinted



A. Chemical added to give an opaque, white appearance

B. Layer of colored glass over clear layer; design is cut in top layer

C. Glass with rainbow-like luster design

D. Entire glass is colored, yet transparent

E. Acid "eats" design into glass

F. Liquid glass is pressed into molds

G. Design is raised in relief

H. Outside of glass is sand-blasted

I. A rim of gold or platinum is put on glassware

UNIT VIII: MEALS FOR FAMILY AND SPECIAL OCCASIONS

ASSIGNMENT SHEET #5: TABLEWARE: BUY IT RIGHT!

Directions: Unscramble the words in the left-hand column and fill in the statements on the right to get 15 wise-buying tips.

NOEP OCSTK	1.	______ ______ means that a tableware pattern can be bought in individual pieces and will be available for some time. It does not mean it will always be available.
ECALP TESNTIG	2.	Fine china is usually bought by the ______ ______, which includes a complete service for one person.
TALFWREA	3.	______ is the general term for all eating utensils.
ERGLISTN	4.	______ utensils are the most expensive kind and are made of 92.5 percent silver with other metals added for strength.
NLIATSSES	5.	______ utensils are the least expensive kind and are made of steel, alloyed with chromium to resist corrosion and discoloration.
REVPALTELIS	6.	______ utensils are made of a base metal and coated with silver. They are moderately priced.
NELISN	7.	Tablecloths, runners, napkins, and placemats are all called table _________,though they may be made of many other fibers.
LUCTENSNART	8.	Fine china is ______. If you hold it up to a light with your hand behind it, you should be able to see the shadow of your hand.
SYATLRC	9.	Fine ______ should look clear and ring like a bell when tapped.
NEOB NICAH	10.	______ ______ is fine dinnerware made of white clay with a high percentage of animal bone ash. It is fired at a very high temperature.
HRWLOELAOW	11.	______ includes containers such as teapots, bowls, pitchers.

NEWREAOTS 12. ______ is less expensive than china and very popular today. It is fired at a lower temperature than china and is characteristically brown or gray in color.

TASEWMER 13. ______ is the name given to glassware such as water goblets and sherbet glasses.

OOPSRU 14. ______ dinnerware is not highly durable.

EIMALNEM 15. ______ is a plastic dinnerware which may scratch or stain.

UNIT VIII: MEALS FOR FAMILY AND SPECIAL OCCASIONS

ASSIGNMENT SHEET #6: "LET'S PRETEND"

Directions: Working together in groups of 2 or 3, students are to list factors to consider when selecting tableware for the situation chosen and to find a picture showing an example of dinnerware suitable for the situation. Answers are to be written on a separate sheet with picture attached.

1. You are a young career person with traditional tastes and live in an apartment. Name three important factors you should consider when selecting your first tableware. Find a magazine or catalog picture which shows flatware, dinnerware, and glassware suitable to your needs.

2. You are a very casual person with a good job and your apartment has a very contemporary decor. What are three factors to consider when choosing tableware? Find a magazine or catalog picture to illustrate flatware, dinnerware and glassware which might meet your needs.

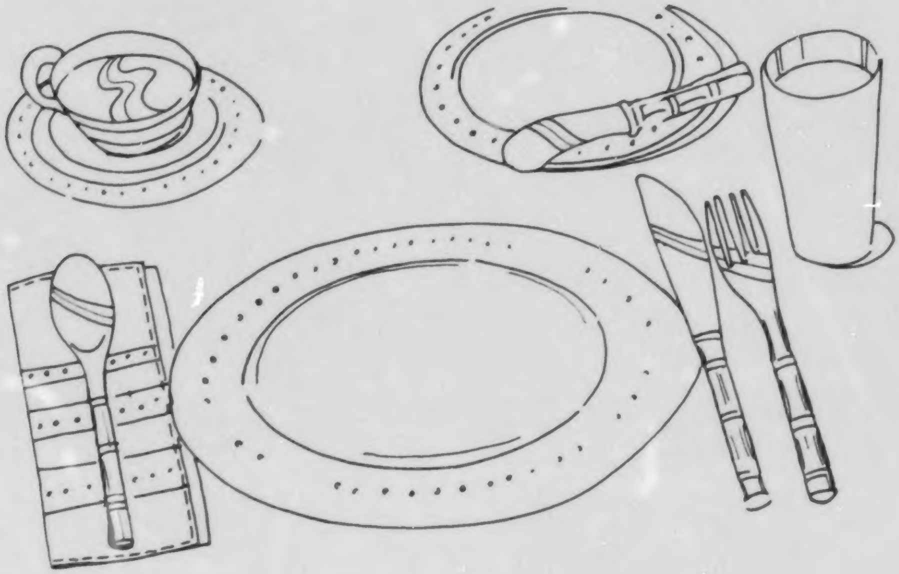
3. You are a young married couple living in an apartment on a tight budget and you have a small child. What are three important factors to consider when selecting tableware? Find a magazine or catalog picture which shows flatware, dinnerware and glassware suitable to your needs.

4. You are not really sure of your tastes, yet you need to buy a set of dinnerware. What are three things to consider? Find a magazine or catalog picture of dinnerware which might be suitable.

UNIT VIII: MEALS FOR FAMILY AND SPECIAL OCCASIONS

ASSIGNMENT SHEET #7: SET IT RIGHT! REVIEWING BASIC TABLE SETTING

Directions: Now that you know about selecting tableware, find out how much you remember about basic table setting. Find the mistakes and write them down in the space provided.



1 ______________________________

2 ______________________________

3 ______________________________

4 ______________________________

5 ______________________________

6 ______________________________

7 ______________________________

8 ______________________________

ASSIGNMENT SHEET #8: CASE STUDIES

Directions: Divide into groups of two or three. Read the situation below and write your group's solution. When all groups are finished, discuss answers as a class. Compare different answers and evaluate answers for the best solution for the situation (For answers involving sketches, have several students place answers on the blackboard.) Situations may have more than one solution. (Evaluation is done as a class during discussion.)

1. It is a hot summer afternoon and you have invited eight guests for dinner on the patio. The mood is casual, and the service is buffet-style, since you do not have a table large enough to seat more than four. Plan an appropriate menu (explain reasons for your choice) and sketch your table arrangement.

2. You have been married a year and have a career that you love. Tonight after work there is just a little over an hour to fix dinner, eat, clean up, and get ready for the opening play of the fall theater season. Plan a menu for you and your spouse. Also describe how you would best serve this meal.

3. You have planned the following menu for a dinner with friends. Sketch how you will have the table set (only sketch one cover) when guests are seated. The menu is: Appetizer: soup; Main course: roast beef, mashed potatoes, broccoli, green salad (served with main course), rolls and butter; Dessert: mixed fruit; Beverage: water; coffee served with dessert.

4. You have just started to work for a local restaurant. On your first day, the manager has you set up a table for a group luncheon. Since they are short-handed on this particular day, you have to do it by yourself and have no one to answer questions. Sketch a diagram of how each cover should look when customers are seated. The menu is: Appetizer: shrimp cocktail; Main course: chicken casserole and green salad; Dessert: strawberry pie; Beverage: Iced tea served with main course, coffee served with dessert.

5. David and his wife are planning to serve the following menu for company on Saturday evening. David is not pleased with the menu. How could David alter the menu without changing completely? Explain why changes were made. Menu: cream of mushroom soup; baked flounder, wax beans, mashed potatoes, rice pudding and milk.

UNIT VIII: MEALS FOR FAMILY AND SPECIAL OCCASIONS

ASSIGNMENT SHEET #9: PLANNING YOUR TABLE

Directions: Coordinate your own table setting using individual pictures of dinnerware, flatware, glassware and centerpiece clipped from magazines, catalogs, or pamphlets. Choose a color scheme and occasion for your setting and find fabric swatch samples to represent napkins and table covering (colored paper swatches could be used if fabric is unavailable). Attach all samples in spaces provided and sketch the full view of the table. Answer the questions to further describe your setting and meal.

Your plan should show good coordination of style and color in regard to pieces chosen, occasion, and surroundings. Pieces chosen should also be versatile enough to allow variety, yet show individuality and creativity in the setting. Be sure to show correct placement of items on the table and be sure all parts of the assignment are completed and in neat form.

1. Tell a little about whom you are entertaining and what and where the occasion is. (Is it a party or a family meal? Formal or informal? Style of service?)

2. Describe room surroundings (color scheme, style of furnishings, etc.)

3. Explain the versatility of your dinnerware, flatware and glassware by describing other table coverings, centerpieces, etc. that could be used for other occasions.

Paste dinnerware
picture here.

Paste glassware
picture here.

Attach samples
of the napkin material here.
And tablecloths or mats if used.
Paint swatches or clippings from a
magazine can be used too.

Draw or Paste a Sketch of
Your Centerpiece Here

Place picture of flatware here.

COLOR SCHEME:

STUDENT EVALUATION FOR ASSIGNMENT SHEET #9

1. List reasons why you think your selection and setting is a good one. (Give at least 3 specific reasons)

2. What was the hardest part of this assignment? Why?

3. What was the easiest part of the assignment for you? Why?

4. What things did you learn from this assignment?

5. How do you think this assignment (and this section) will help you in your future home?

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TEACHER EVALUATION FORM FOR ASSIGNMENT SHEET #9

Projects will vary but should meet the satisfaction of the teacher.

1. All parts of assignment are complete (35 points)
COMMENTS:

2. Table setting is appropriately drawn (5 points)
COMMENTS:

3. All items coordinate in color, tentative formality and are appropriate for the occasion and surrounding
COMMENTS: (40 points)

4. Choice of tableware shows some versatility (5 points)
COMMENTS:

5. All questions on student evaluation are appropriately answered
COMMENTS: (15 points)

Bonus for extra creativity

UNIT VIII: MEALS FOR FAMILY AND SPECIAL OCCASIONS

ASSIGNMENT SHEET #10: IMPORTANCE OF ATTAINING SOCIAL SKILLS

Directions: While viewing the transparencies, answer the questions below.

1. List poor manners you see exhibited "at home". (TM 6)

	List poor manners you see exhibited "at home". (TM 6)	What is wrong with this behavior "at home"?
a.		
b.		
c.		
d.		
e.		

2. Look at TM #7

	List the poor manners you see exhibited in "when eating out".	What is wrong with this behavior "when eating out"?	What should be done instead?
a.			
b.			
c.			
d.			
e.			

3. Why do you think we should study good table manners?

4. What do you feel is the main purpose of good table manners?

5. List mistakes you have noticed that others make that bother you.

6. What things about table manners and eating out are you unsure about?

UNIT VIII: MEALS FOR FAMILY AND SPECIAL OCCASIONS

ASSIGNMENT SHEET #11: WHY DO YOU EAT OUT AND WHAT DO YOU LOOK FOR?

1. Place an X at the rating which best describes your opinion

	NOT IMPORTANT	SOMEWHAT IMPORTANT	VERY IMPORTANT
How important is it that the...			
Host/hostess smiles and says "hello" when you arrive			
Table is clean and set before you are seated			
Floor or carpet is spotless			
Tables are spaced far enough apart so other people cannot hear you talking in a normal voice			
Waiters/waitresses are neat and well-groomed			
Menu describes the ingredients in all foods listed			
Waiter/waitress takes food back to the kitchen at your request			
Manager is available for complaints			
Trays are bussed quietly from the dining room			
Employees seem to be friendly and work well together			
Check is clearly written for your review			

2. Look over your rankings, then determine how you would describe yourself as a customer.

____ More particular than most people

____ Just about as particular as most people

____ Much less particular than other people

____ More interested in food than in service

____ Equally interested in food and in service

____ More interested in good service than in food

3. List reasons why people eat out.

____

____

____

____

____

____

____

4. On an average, how many times per month do you think these people eat out? Be ready to discuss reasons for your answers.

____ Teenagers

____ Couples with young children

____ Couples with school-age children

____ Single adults (young-middle age)

____ Couples without children (young to middle age)

____ Elderly single person

____ Elderly married person

____ You

____ Your family

UNIT VIII: MEALS FOR FAMILY AND SPECIAL OCCASIONS

ASSIGNMENT SHEET #12: COULD THIS HAPPEN TO YOU?

Directions: Read the stories below and answer the questions about each.

"The Birthday Dinner"

Jim has saved up his money to take his date to an expensive restaurant for her birthday. It is his first time there, and he is trying hard not to let it show.

Jim: The service here is really excellent! (Aside: I wonder if I'm supposed to tip the guy in the tuxedo who brought us to the table and gave us the menus.)

Susan: It certainly is. And I hear the food is marvelous. (Aside: Why don't they write it in English? He'll think I'm a real dummy when I try to order - I can't even pronounce anything!)

Jim: I really like the way the room is decorated. (Aside: At least it is dark, so no one can see if I use the wrong fork!)

Susan: And everyone is dressed so elegantly. (Aside: Maybe I should have left my coat at the checkroom. Did that woman over there keep hers with her, or not? It's so dark, I can't tell!)

Jim: The prices are really very reasonable, considering what they give you. (Aside: What do they give you? I can't tell what's included and what costs extra. I hope I brought enough money. If I didn't, I'll really look like a fool - she'll never go out with me again!)

Susan: It all looks so good, I just don't know what to order! (Aside: I sure don't! I wish he'd order first. Then I could just get the same thing. If I make a fool of myself, he'll never ask me out again!) This is certainly a special birthday. (I wish we could go home.)

The Dinner Dance

"How elegant," said Karen as she entered the candle-lit dining room of the country club. This was the first time she had ever been to a formal dinner dance. As she was seated she thought a little nervously, "Look at all that silverware, and why are so many plates on the table?"

A fruit cup was served and Karen began eating. She quickly discovered that some of the others at the table had not been served. She blushed slightly, stopped eating, and wiped her mouth. As she put the napkin back beside her plate, she noticed that no one else at the table seemed to have a napkin. When she saw that the person next to her had placed his napkin on his lap, she did the same. "Maybe no one noticed," she thought hopefully. When the soup was served, she realized that she had used the soup spoon to eat the fruit cup, so she struggled along with a teaspoon.

The main course was served. Karen picked up her knife and fork and commented in a whisper, "Here goes nothing." She was used to eating very casually, not at a beautiful table set with fine linens and burning candles, and not dressed in a gown. She was hoping things would go more smoothly, when a piece of meat slipped off her plate and onto her lap. She got up immediately to go to the powder room. Her escort gave her a surprised look but said nothing.

In the powder room she moaned, "Here I am, Karen the whiz kid - intellectual giant and social midget! What'll I do now? Oh, I wish that dinner were over; I know how to dance."

1. What three things was Jim unsure about?

2. What three things was Susan unsure about?

3. What five mistakes did Karen make?

4. What suggestions would you have for Jim, Susan, and Karen?

5. Have you eaten in an expensive, luxurious restaurant or at a formal dinner?

6. What things made you feel (or would make you feel) uneasy or were you unsure about?

7. On what occasions or in what circumstance in the future (next ten years) might you find yourself at such a dinner?

UNIT VIII: MEALS FOR FAMILY AND SPECIAL OCCASIONS

ASSIGNMENT SHEET #13: LET'S EAT OUT

Directions: The hidden words are restaurant lingo. Some expressions are two or three words long. Some are in a foreign language. Read the clues below and write the words in the blanks. Then circle the answers in the puzzle. The words are spelled horizontally, vertically, and diagonally. The words may be read either forward or backward.

O	C	H	A	T	E	A	U	B	R	I	A	N	D	A
A	L	A	M	O	D	E	X	H	K	E	T	O	N	E
D	F	L	A	M	B	E	M	D	T	X	A	E	O	T
T	U	A	E	T	T	E	H	C	O	R	B	N	I	D
T	L	C	H	O	W	M	E	I	N	E	L	C	T	O
A	Z	A	A	J	W	A	I	J	F	T	E	O	A	G
E	S	R	S	U	T	I	O	Y	P	T	D	Q	V	U
R	R	T	N	Q	G	T	P	T	V	E	H	U	R	N
T	W	E	T	H	K	R	P	I	W	R	O	I	E	T
H	M	D	R	E	H	E	A	U	T	G	T	L	S	S
C	O	U	R	S	E	D	F	T	U	I	E	L	E	U
T	J	Q	E	Y	L	H	C	A	I	A	R	E	R	J
U	D	E	Y	B	W	O	I	R	D	N	R	W	V	U
D	U	J	O	U	R	T	S	G	W	I	U	T	E	A
A	C	A	F	E	T	E	R	I	A	V	E	X	D	R
Z	S	E	I	R	O	L	A	C	D	J	B	Y	W	O
E	S	C	A	R	G	O	T	M	O	U	S	S	E	T

1. Sprinkled with buttered crumbs and baked ____________

2. When each person pays separately ____________

3. Thick tenderloin steak ____________

4. Topped with ice cream ____________

5. Head waiter ____________

6. Snails ____________

7. When each item is listed and priced separately on a menu ____________

8. Tip ____________

9. Means "of the day" in French ____________

10. A rich dessert walks ____________

11. When one price is listed for a complete meal ____________

12. List of all the foods and beverages served ____________

13. Served in a shell ____________

14. Broiled on skewers

15. Restaurant where customer walks through serving line ____________

16. Butter ____________

17. Served in natural juices ____________

18. Served flaming ____________

19. Sauce made of vinegar and oil ____________

20. Table saved when a person calls a restaurant ahead

UNIT VIII: MEALS FOR FAMILY AND SPECIAL OCCASIONS

ASSIGNMENT SHEET #14: READING A MENU

Directions: Actual restaurant menus or copies should be given to each 1-2 students. Working individually or in pairs, the students are to answer the following questions. Following class discussion, menus should be turned in with question sheets when completed.

1. From the appearance of the menu, the foods listed and prices given, does this appear to be a menu from a fast-food restaurant, family restaurant, or luxury restaurant?

2. Does this restaurant specialize in any particular type of food? If so, what?

3. Is the style of this menu a la carte, table d'hote or a combination of these? How can you tell?

4. If the menu is a combination of a la carte and table d'hote, figure the cost of a meal listed table d'hote and approximately the same meal if purchased a la carte. Show calculations below. Which is a better buy?

5. List terms used on the menu that are defined in the "Menu Language" section of this guide. (List no more than 5 terms.)

6. List any terms used on the menu which you do not understand.

7. Does this restaurant have a "special" for the day? If so, what is it? What does this mean?

8. Is this menu clear and easily understood? In what ways?

9. Do you notice anything unusual about this menu? If so, what?

10. Pretend you are eating a meal at this restaurant. Below, list your food choices, the cost you would have to pay and questions you would ask the waiter or waitress before or during ordering.

11. After looking at this menu do you think you would like to eat in this restaurant? Why or why not?

AS 14 cont'd

COUNTRY·DINNERS
QUALITY
GUARANTEED

Served with Green Salad,
Choice of Potato, Hot Home Baked Bread
or Honey Bread

U.S.D.A. CHOICE T-BONE STEAK-ONE FULL POUND 12.95
For a hardy appetite, cut from carefully aged loins char-broiled to your order-topped with onion rings

MANAGER'S SPECIAL STEAK 8.95
8 ounces of U.S. Choice Top Sirloin char-broiled to order, topped with onion rings

TENDER CHOPPED BEEF STEAK 5.95
10 ounces selected Beef, char-broiled to order, topped with onion rings

CHICKEN LIVERS 5.25
Crisp and crunchy outside, light and tender inside

CENTER CUT PORK CHOPS 7.95
From tender young porkers, breaded, deep fried to a golden brown.
Served with home-style applesauce.

ROAST BEEF DINNER 7.95
Roast Choice U.S. Round of beef, mashed potatoes, brown gravy, garden vegetable

JUMBO GULF SHRIMP 7.95
Choice select gulf shrimp, hand breaded, deep fried and served with our own tangy red sauce

FISH FILLET 5.00
From icy North Atlantic waters, breaded and deep fried to perfection,
with Tarter sauce and hush puppies

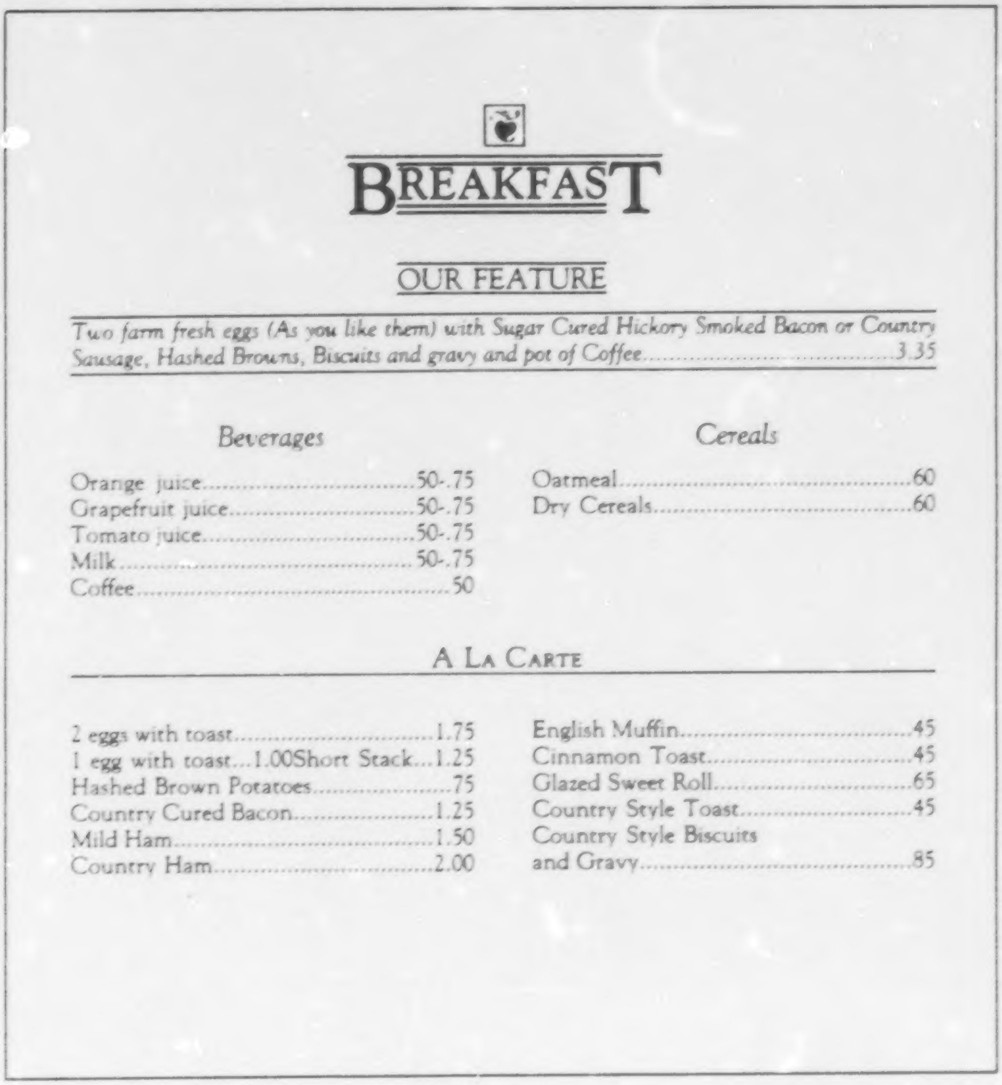
Treats

Pecan Pie	95
Cream Pie	95
Jello, whipped topping	75
Chocolate sundae	1.25
Ice Cream or Sherbet	60

Drinks

Coffee	50
Hot or Iced Tea	50
Milk	50
Chocolate Milk	50
Fountain drinks	60

AS 14 cont'd



BREAKFAST

OUR FEATURE

Two farm fresh eggs (As you like them) with Sugar Cured Hickory Smoked Bacon or Country Sausage, Hashed Browns, Biscuits and gravy and pot of Coffee......3.35

Beverages

Orange juice	50-.75
Grapefruit juice	50-.75
Tomato juice	50-.75
Milk	50-.75
Coffee	50

Cereals

Oatmeal	60
Dry Cereals	60

A LA CARTE

2 eggs with toast	1.75
1 egg with toast...1.00Short Stack	1.25
Hashed Brown Potatoes	75
Country Cured Bacon	1.25
Mild Ham	1.50
Country Ham	2.00

English Muffin	45
Cinnamon Toast	45
Glazed Sweet Roll	65
Country Style Toast	45
Country Style Biscuits and Gravy	85

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ANSWERS TO ASSIGNMENT SHEETS

Assignment Sheet 1

Note: The calorie amounts of these meals may be changed further by using higher calorie or lower calorie foods in each.

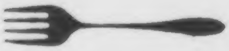
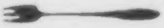
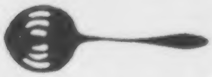
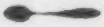
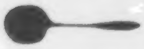
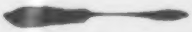
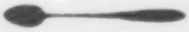
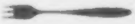
Light	Medium	Heavy
Breakfast		
Fruit or juice (usually citrus) Cereal and milk Bread Beverage	Fruit or juice (usually citrus) Main dish (protein food) Bread Beverage	Fruit or juice (usually citrus) Cereal and milk Main dish (protein food) Bread Beverage
Lunch		
Main dish (protein food in casserole, soup, salad, or sandwich) Vegetable or fruit Milk or other beverage	Main dish (protein food in casserole, soup, salad, or sandwich) Combination of two vegetables and/or fruit Milk or other beverage	Main dish (protein food in casserole, soup, salad, or sandwich) Vegetable and/or fruit Dessert (optional) Milk or other beverage
Dinner		
Main dish (meat, fish, or poultry) Two vegetables (or vegetable and fruit) Bread Beverage	Main dish (meat, fish, or poultry) Two vegetables (one usually starchy) Salad Bread Light dessert, optional Beverage	Main dish (meat, fish, or poultry) Two vegetables (one starchy) Salad Bread Dessert (could be heavy) Beverage

Note: These are basic patterns and may be varied further.

Assignment Sheet 2

Answers will vary, but all questions should be answered completely and to the satisfaction of the instructor.

Assignment Sheet 3

COLUMN A	COLUMN B	COLUMN C
1. 	3 gravy ladle	8 teaspoon with long handle for parfaits and iced beverages in tall glasses
2. 	4 flat server	7 also for serving cheese, spreads, hors d'oeuvres, certain jams, jellies
3.	7 butter serving knife	4 for serving cold meats, chops, salads, tomatoes, broccoli, asparagus, cucumbers, eggs
4. 	8 iced beverage spoon	9 also for serving pastries, frozen desserts, fish cutlets, waffles, aspics, meat loaf
5. 	1 cold meat or buffet fork	3 also for serving sauces, salad dressings, punch, soups, stews, creamed dishes
6. 	9 pie or cake server	2 also for serving relishes, lemon slices, butter pats, garnishes
7. 	6 sugar spoon	10 small, slender fork for seafood appetizers
8. 	10 cocktail or oyster fork	5 tiny spoon for coffee in demitasse
9.	2 olive or pickle fork	1 fork for serving sliced meats, chops, souffles, fried chicken, sliced tomatoes, cheese, platter salads
10. 	5 demitasse spoon	6 also for serving relishes, preserves, nuts, jams, sauces

Assignment Sheet 4

1. B 6. H
2. E 7. G
3. 8. A
4. F 9. C
5. I 10. D

Assignment Sheet 5

1. Open stock
2. place setting
3. Flatware
4. Sterling
5. Stainless
6. Silverplate
7. linens
8. Translucent
9. crystal
10. Bone china
11. Hollowware
12. Stoneware
13. Sternware
14. Porous
15. Melamine

Assignment Sheet 6

1. Style - coordinate with room decor and other tableware
   Amount of storage space required
   Price
   Durability
   Open Stock so you can add more pieces if desired

2. Style and color - should coordinate with contemporary decor
   Amount of storage space required
   Lifestyle
   Price
   Dual-purpose pieces
   Open stock

3. Answers will vary, but picture should demonstrate consideration of these factors:
   Inexpensive and practical
   Break-resistant
   Easy to store
   Basic pieces to which more can be added
   Versatile style
   Easy to clean
   Brand with replacement guarantee

4. Price - don't spend a lot of money on something you're not sure about
   Basic style - more versatile; you won't grow tired of it as easily
   Number of pieces - buy as few pieces as possible (if open stock, you can buy more if you like)
   Design and color - should coordinate with the surroundings

Assignment Sheet 7

Any eight of the following:
coffee cup should be on right
cup handle should be on right slightly toward front
fork should be on left
spoon should be on right
glass should be at top of knife
knife blade edge should face plate
bread and butter plate should be at upper left

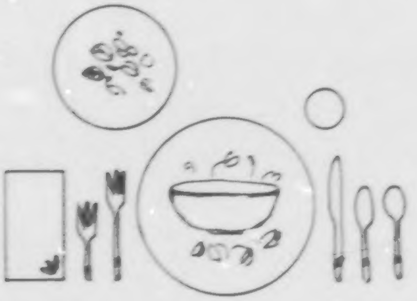
butter knife should be placed horizontally across top of bread and butter plate, vertically on right of bread and butter plate or diagonally across top right corner of bread and butter plate

if space permits, flatware should not be placed on napkin

handles of flatware, plate rim and napkin should be one inch from table edge

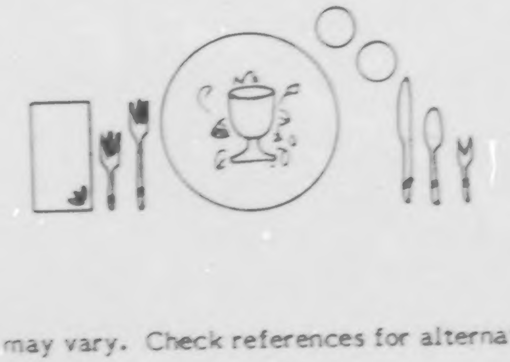
Assignment Sheet 8

1. Answers will vary, but should include light foods which will keep well on a summer day, and are appropriate for a buffet. Table arrangements should follow guidelines for buffet service.
2. Answers should include a very simple balanced menu which can be prepared in about 30 minutes (sandwich and salad, etc.). Service should probably be blue plate to save cleanup.
3.



NOTE: Salad could be served on plate, but might be crowded. Could leave out salad fork.

4.



NOTE: Setting may vary. Check references for alternate patterns.

5. Suggestions will vary but may include: Lacks color and texture. Could change soup to tomato, beans to green beans or salad, mashed potatoes to french fries, pudding to fresh fruit, etc.

Assignment Sheet 9

Should be evaluated to the satisfaction of the instructor.

Assignment Sheet 10

See transparency overlay. (TM 6 and 7)

Assignment Sheet 11

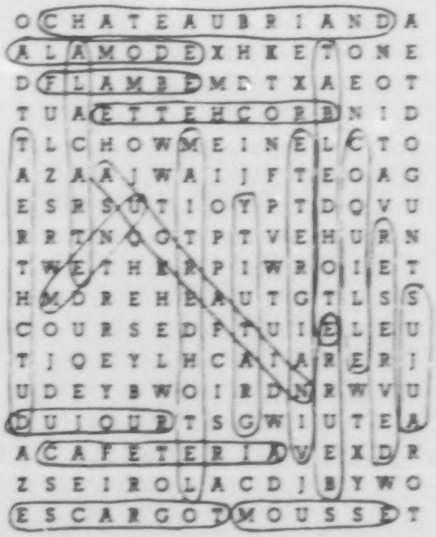
Chart should be completed and all questions should be answered to the satisfaction of the instructor.

Assignment Sheet 12

Answers will vary, but should include discussion of guidelines for eating out from the information outline.

1. Tips, use of utensils, prices
2. Menu, placement of coat, what to order, terms
3. Little knowledge of table setting; use basic etiquette, or when to start eating; where to place napkin; which utensils to use; lack of practice eating formally
4. Answers will vary but should follow guideline
5. Answers will vary
6. Answers will vary
7. Answers will vary but might include: prom, wedding receptions, retirement dinners, fellow employees, etc., banquets (connected with job or organizations).

Assignment Sheet 13



O C H A T E A U B R I A N D A
A L A M O D E X H K E T O N E
D F L A M B E M D T X A E O T
T U A E T T E H C O R B N I D
T L C H O W M E I N E L C T O
A Z A A J W A I J F T E O A G
E S R S U T I O Y P T D O V U
R R T N O G T P T V E H U R N
T W E T H E R P I W R O I E T
H M O R E H E A U T G T L S S
C O U R S E D F T U I E L E U
T J O E Y L H C A I A R E R J
U D E Y B W O I R D N R W V U
D U J O U R T S G W I U T E A
A C A F E T E R I A V E X D R
Z S E I R O L A C D I B Y W O
E S C A R G O T M O U S S E T

Assignment Sheet 14

Answers will vary, but should be accurate for the sample menus used.

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JOB SHEET #1: FOLDING A DECORATIVE NAPKIN

Although the most common and most formal method of folding a napkin (which is appropriate for any occasion) is in a simple rectangular shape, it is sometimes fun and more decorative to fold the napkin in a more creative way, especially for a special occasion.

Equipment:

1. 1 napkin, preferably dinner size
2. Diagrams of decorative napkin folds

Procedure:

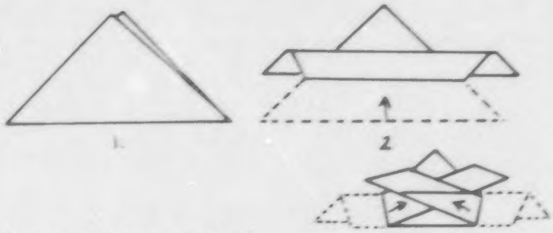
1. Following one of the diagrams on the following pages, complete a decorative napkin fold.
2. Display the folded napkin on a table for evaluation by your instructor.

Evaluation:

Points possible - 10 (napkin folded correctly according to diagram)

Points received __

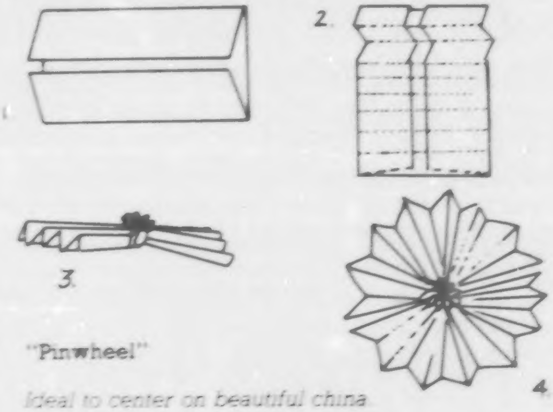
NOTE TO THE INSTRUCTOR: Students may be assigned more than one fold if time permits.



"Ascot Tie" A "quickie"

Lends itself to all-over print. Decorates a plate.

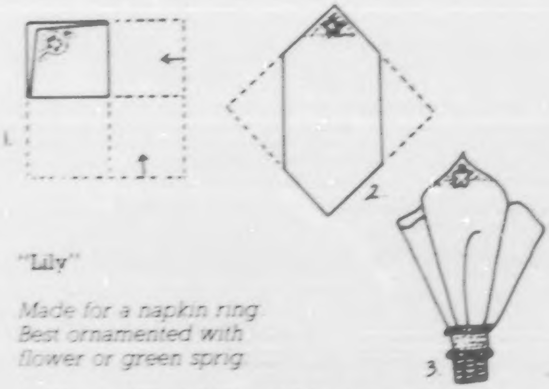
1. Fold in ½, large triangle, point at top.
2. Turn up ¼ and again ¼.
3. Turn L. point R. of top point, and R. point to L.



"Pinwheel"

Ideal to center on beautiful china.

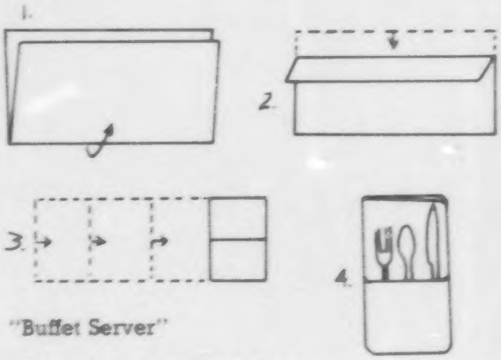
1. Bring top and bottom edges to ¼" of center, leaving ½" along center line.
2. Pleat sharply from L. edge.
3. Pinch center together, secure with napkin clip.
4. Spread out pinwheel.



"Lily"

Made for a napkin ring. Best ornamented with flower or green sprig.

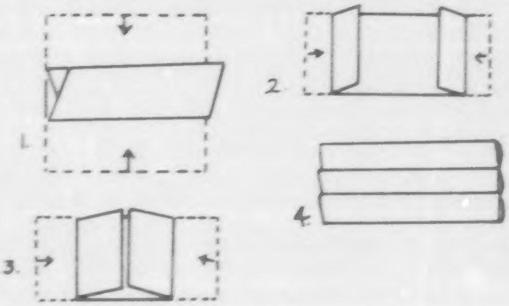
1. With right side down, fold into quarters.
2. Turn over with ornamented point up.
3. Fold back L. and R. corners.
4. Pleat softly and even folds to shape.
5. Slip on napkin ring.



"Buffet Server"

Perfect for holding silver when there is a crowd.

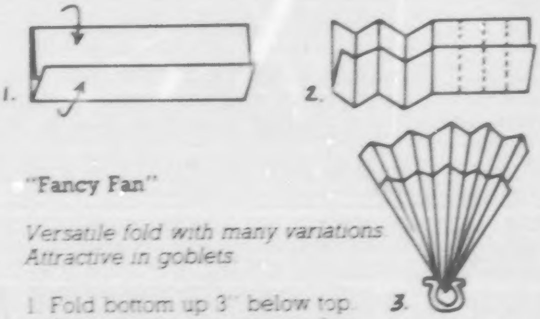
1. Fold in half with open ends at top.
2. Fold down open top to middle of fold.
3. Turn face down. Fold over four times, from L. to R.
4. Turn face up and place silver in pocket.



"The Book"

Formal and reserved. Looks well on a plate. Good for stag dinners.

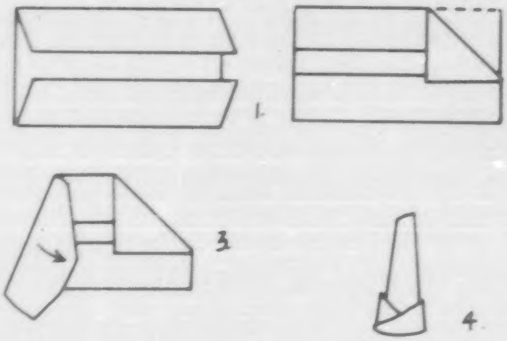
1. Fold edges into thirds.
2. Turn L. and R. ends in ¼ each.
3. Both ends to center again.
4. Fold R. side under. Slip back to make three even folds.



"Fancy Fan"

Versatile fold with many variations. Attractive in goblets.

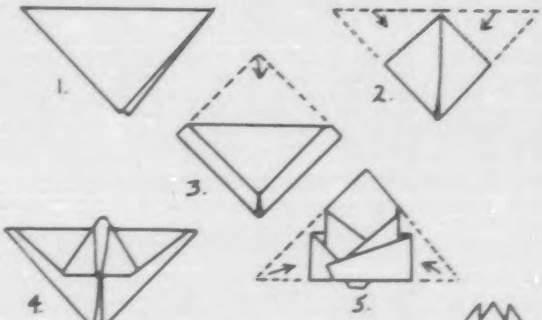
1. Fold bottom up 3" below top.
2. Fold top down to cover edge.
3. Pleat in sharp creases 1½" wide, starting at L.
4. Clip pleats together at bottom.

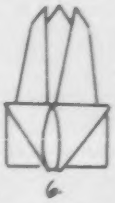


"Clown's Hat"

Stands for height in table design. For child's party trim with pompons or lollypops.

1. Fold bottom up 4''. Fold top down 3½''.
2. Fold down upper R. corner ⅔ to bottom.
3. Take upper L. corner. Roll around hand into cornucopia.
4. Turn up both points with cuff edge.
5. Tuck in at back to stand.

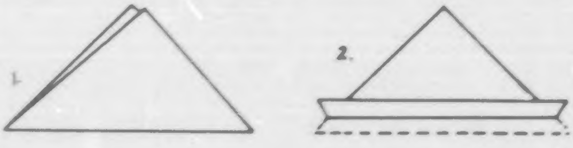


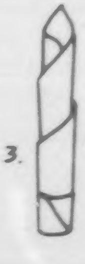


"Bishop's Hat"

Standing formal fold, used by finest hotels and restaurants.

1. Fold into triangle; center point down.
2. Fold R. and L. points to center point.
3. Fold top corner down to one inch bottom point.
4. Turn folded point back to upper edge.
5. Turn over. Fold R. and L. points across to overlap, one inside the other.
6. Stand and turn down two upper corners "Fleur de-Lys."

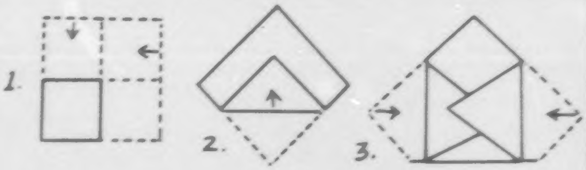




"Candle"

A Charming accent for height. Very special for birthdays or Christmas. Trim with balls or greens.

1. Fold into large triangle, point at top.
2. Turn bottom edge up one inch.
3. Turn folded edge face down.
4. Roll tightly L. to R.
5. Tuck in corner, stand upright.



"A La Maison"

Basic fold for printed or embroidered corner. If plain, trim.

1. Fold in half and again into square.
2. Turn up folded corner three-quarters.
3. Bring R. and L. side points to overlap.
4. Turn over. Adjust sides even, single point in center.
5. If lace, turn back all but front corner.

PLANNING, PREPARING AND SERVING MEALS
GENERAL GUIDELINES FOR JOB SHEETS #2, 3, 4, 5, 6

1. Students should use a different small electrical appliance for each meal preparation.

2. Students should serve different types of food for each meal. (For example: if ice cream is served for the luncheon, another kind of dessert such as cake should be served for the family dinner.)

3. At least one of the meals (if as many as three meals are served) should have a homemade bread; at least one should have a non-convenience type dessert.

4. Use of convenience foods depends on budget, time, and teacher recommendations.

5. Cost of each meal should be within the dollar amount given by teacher. Bonus points may be given for "extra saving" meal and minus points for going over budget.

6. A different style of meal service should be used for each meal.

7. Students should review meal evaluation forms prior to meal planning and finish filling out following clean-up.

8. Students should follow information in Unit VI when planning time schedules, utensils, etc.

9. Students should choose or adjust recipes to serve the number in their group with a minimum of leftovers.

10. If feasible, students may want to invite a "guest" to their meals (a staff member with planning hour or break, student with a study hall, or a parent). This makes planning, preparation, serving, and eating the meal more realistic and special.

UNIT VIII: MEALS FOR FAMILY AND SPECIAL OCCASIONS

JOB SHEET #2: PLANNING, [illegible]EPARING, AND SERVING A LUNCHEON

Directions: Follow the steps below and HO #11, 15, 16 of "Managing the Foods Department" to plan, prepare, and serve a luncheon using appropriate size groups for your class. Also follow general guidelines listed previously. Allow 3-5 class sessions for the activity.

Steps:

1. Plan menu according to meal patterns for a family luncheon and general menu guidelines.
2. Plan recipes
3. Plan market list
4. Plan time/work schedule for preparation and serving, eating, and clean-up
5. Plan utensils, electrical appliances, etc.
6. Plan method of serving
7. Plan tableware
8. Shop for groceries (optional)
9. Early preparation (probably 1 day ahead)
10. Final preparation (day of serving)
11. Serving and eating
12. Clean-up
13. Evaluation

STUDENT/TEACHER
LUNCHEON EVALUATION (JS 2) - 100 pts.

	Points Possible	Points Earned
MENU		
Met basic nutrition requirements	6	
Included 3-4 contrasting colors, good contrast in flavor, texture, shape, temperature	6	
Reasonable cost	4	
TABLE		
Correctly set	6	
Colors and centerpiece well coordinated	4	
Appropriate serving dishes were used.	4	
Good spacing of cover, chairs, etc.	2	
FOODS		
Each food was well prepared and served attractively at correct temperatures		
1. Beverage (Recommend tea, coffee, milk)	4	
2. Main dish (Casserole, soup, etc.)	6	
3. Bread (Quickbread recommended)	6	
4. Salad	4	
5. Simple Dessert	6	
TECHNIQUES AND PLANNING		
Plans and market order were well made and followed:	6	
Work was well-organized	6	
Proper use of a small electrical appliance (at least one)	4	
Meal was on schedule	4	

	Points Possible	Points Earned
MEAL SERVICE AND ETIQUETTE		
Hostess carried out duties properly.	4	
Waiter/waitress carried out duties properly.	4	
Appropriate service styles were efficiently carried out.	4	
Proper etiquette was followed by all.	4	
CLEAN-UP		
On schedule, efficient, all areas left clean	6	
Total	100	

Comments:

JOB SHEET #3: PLANNING, PREPARING, AND SERVING A FAMILY DINNER

Directions: Follow the steps below and HO #11, 15, 16 of "Managing the Foods Department" to plan, prepare, and serve a family dinner using appropriate size groups for your class. Also follow general guidelines listed previously. Allow 3-5 class sessions for this activity.

Steps:

1. Plan menu according to meal patterns for a family dinner and general menu guidelines.
2. Plan recipes.
3. Plan market list.
4. Plan time/work schedule for preparation and serving, eating, and clean-up.
5. Plan utensils, electrical appliances, etc.
6. Plan serving method.
7. Plan tableware.
8. Shop for groceries (optional).
9. Complete cost analysis sheet for meal Job Sheet #3A.
10. Early preparation (probably 1 day ahead)
11. Final preparation (day of serving)
12. Serving and eating
13. Clean-up
14. Evaluation

STUDENT/TEACHER
FAMILY DINNER EVALUATION (JS 3) - 100 pts.

	Points Possible	Points Earned
MENU		
Met basic nutrition requirements	6	
Included 3-4 contrasting colors, good contrast in flavor, texture, shape, temperature	6	
Reasonable cost	4	
TABLE		
Correctly set	6	
Colors and centerpiece well coordinated	4	
Appropriate serving dishes were used	4	
Good spacing of cover, chairs, etc.	2	
FOODS		
Each food was well prepared and served attractively at correct temperatures		
1. Beverage (Recommend tea, coffee, milk)	2	
2. Main dish (Meat, fish, poultry, etc.)	6	
3. Vegetables (1-2)	6	
4. Bread	4	
5. Salad	4	
6. Dessert	6	
TECHNIQUES AND PLANNING		
General techniques carried out correctly	4	
Plans were well made and followed	6	
Proper use of a small electrical appliance (at least one)	4	
Work habits, timing, clean-up, well organized and carried out:	6	

	Points Possible	Points Earned
MEAL SERVICE AND ETIQUETTE		
Hostess carried out duties properly.	4	
Waiter/waitress carried out duties properly.	4	
Appropriate service styles were efficiently carried out.	4	
Proper etiquette was followed by all.	4	
CLEAN-UP		
On schedule, efficient, all areas left clean	4	
Total	100	

Comments:

JOB SHEET #3A: COST ANALYSIS FOR FAMILY DINNERS

Directions: Determine the following about your meals.

1. What was the total cost of the dessert:
Main Ingredients: ____________________
____
____
Total cost: ____________
Cost per serving: ____________

2. What was the total cost of the meat dish:
Main Ingredients: ____________________
____
____
Total cost: ____________
Cost per serving: ____________

3. What was the toal cost of the salad:
Main Ingredients: ____________________
____
____
Total cost: ____________
Cost per serving: ____________

4. What was the total cost of the meal?: ____________________
Cost per serving: ____________________

5. If you were low on money and had to cut costs, which ingredients would you eliminate or substitute or which dishes would you change?

6. In what ways was your meal typical of a family meal for four or five served in an average household?

7. In what ways was your meal different or not typical?

JOB SHEET #4: PLANNING, PREPARING, AND SERVING A FORMAL DINNER

Directions: Follow the steps below and HO #11, 15, 16 of "Managing the Foods Department" to plan, prepare, and serve a formal dinner using appropriate size groups for your class. Also follow general guidelines listed previously. Allow 3-6 class sessions for this activity.

Steps:

1. Plan date, numbers of guests, etc.
2. Plan menu according to pattern for a formal meal.
3. Analyze menu using Job Sheet #4A.
4. Plan recipe.
5. Plan market list.
6. Plan time/work schedule for prep and serving, eating, and clean-up.
7. Invite guests, using a formal invitation (See HO 1).
8. Plan utensils, electrical appliance, etc.
9. Plan formal serving method procedure.
10. Plan tableware and formal setting for each course.
11. Shop for groceries (optional).
12. Early preparation (probably 1 day ahead)
13. Final preparation (day of serving)
14. Serving and eating
15. Clean-up
16. Evaluation

STUDENT/TEACHER
FORMAL DINNER EVALUATION (JS 4) - 100 pts.

	Not Done –Very good					
	0	1	2	3	4	5
MENU Met basic nutrition requirements						
Included 3-4 contrasting colors; good flavor combinations, texture contrasts, temperature and shape contrast						
TABLE Correctly set for each course						
Colors and centerpiece well coordinated and formal arrangement was used						
Appropriate serving dishes were used						
FOODS - well garnished, attractive, more formal well prepared, and more served at correct temperature 1. Appetizer						
2. Main dish (meat, fish, poultry)						
3. Beverage						
4. Vegetable						
5. Vegetable						
6. Salad						
7. Bread						
8. Dessert						
TECHNIQUES AND PLANNING Proper techniques and use of equipment (at least one small electrical appliance should be used)						
Plans were well made and followed - (time schedule market list, etc.)						
Work habits, timing well carried out						
Clean-up well organized and carried out						

	Not Done–Very good					
	0	1	2	3	4	5
MEAL SERVICE AND ETIQUETTE						
Host/Hostess and server carried out duties well						
Formal meal service was used efficiently.						
Proper etiquette was followed by all						
Total						

Comments:

JOB SHEET #4A: JUDGING A MENU PLAN...FOR WHAT IT'S WORTH!

Directions: Fill in the chart according to the menu you have planned for your formal meal.

Judging A Menu Plan...For What It's Worth!

How can you tell if a menu plan suits your purposes? Here's a handy chart that will help

FOODS YOU PLAN TO SERVE Use a pencil so you can make changes, as necessary	**COLOR?** Bright or Subtle? Be specific	**TEXTURE?** Smooth, Crunchy or in-between?	**FLAVOR?** Mild or Strong. A blend is best	**NUTRITIONAL VALUE?** What does it offer? Be sure to know	**COST?** Price per serving	**CONVENIENCE?** Cooking skills, time and equipment needed
APPETIZER						
SOUP						
SALAD/SALAD DRESSING						
MAIN COURSE						
VEGETABLE (Maybe more than one)						
BREAD						
DESSERT						
BEVERAGE						
OTHER:						

UNIT VIII: MEALS FOR FAMILY AND SPECIAL OCCASIONS

JOB SHEET #5: PLANNING, PREPARING, AND SERVING A BUFFET

Directions: Follow the steps below and HO # 11, 15, 16 of "Managing the Foods Department" to plan, prepare, and serve a buffet. Using the whole class or other appropriate size groups. Allow 3-5 class sessions for this activity.

Steps:

1. Plan date, place, occasion, and guests.
2. Plan menu according to guidelines for a buffet.
3. Plan recipe.
4. Plan market list.
5. Plan time/work schedule for preparation, serving, eating, and clean-up.
6. Plan utensils, appliances, etc.
7. Plan dinnerware, table decor, etc.
8. Plan buffet table and serving line procedure.
9. Plan eating area.
10. Invite guests (if having guests).
11. Shop for groceries (optional).
12. Early preparation
13. Final preparation
14. Serving
15. Eating
16. Clean-up
17. Evaluation

STUDENT/TEACHER
BUFFET EVALUATION (JS 5) - 100 pts.

	Not Done–Very good					
	0	1	2	3	4	5
MENU						
Met basic nutrition requirements						
Good texture/shape variety						
Contrasting colors						
Good flavor combinations						
Appropriate for a buffet						
TABLE AND SERVING						
Buffet table set correctly						
Appropriate serving dishes were used						
Colors and centerpiece well coordinated and formal arrangement was used						
Serving line and eating area for guests appropriate						
FOODS - well garnished, attractive, well prepared, and served at correct temperature						
1. Main dish (meat, fish, poultry)						
2. Beverage						
3. Vegetable						
4. Salad						
5. Bread						
6. Dessert						

	Not Done -Very good					
	0	1	2	3	4	5
TECHNIQUES AND PLANNING						
Proper techniques and use of equipment						
Plans were well made and followed - (time schedule market list, etc.)						
Work habits, timing well carried out						
Clean-up well organized and carried out						
Cordial atmosphere						
Total						

Comments:

UNIT VIII: MEALS FOR FAMILY AND SPECIAL OCCASIONS

JOB SHEET #6: PLANNING, PREPARING, AND SERVING A RECEPTION

Directions: Follow the steps below and HO # 11, 15, 16 of "Managing the Foods Department" to plan, prepare, and serve a reception. This project might work best with the entire class working on one reception. Allow 3-5 class sessions for this activity.

Steps:

1. Plan date, place, occasion, guests.
2. Plan menu according to guidelines for a reception.
3. Plan recipe.
4. Plan market list.
5. Plan time/work schedule for preparation, serving, eating, and clean-up.
6. Invite guests.
7. Plan utensils, appliances, etc.
8. Plan reception table and serving arrangement.
9. Shop for groceries (optional).
10. Early preparation
11. Final preparation
12. Serving and entertaining guests
13. Clean-up
14. Evaluation

STUDENT/TEACHER
RECEPTION EVALUATION (JS 6) - 100 pts.

	Points Possible	Points Earned
MENU		
Appropriate reception foods	6	
Colorful	4	
Variety of forms and textures	4	
TABLE AND SERVING		
Reception table set correctly with appropriate serving dishes and utensils used	8	
Table covering, centerpiece, and decorations attractive, well coordinated and appropriate for theme and occasion	8	
Serving line and eating area for guests well planned and efficiently carried out	6	
Serving techniques were properly carried out	4	
Cordial atmosphere	6	
FOODS - attractive and well-prepared and served		
Punch and coffee	6	
Nuts, mints, etc.	4	
Sandwiches, hors d'oeuvres, etc.	6	
Cake, dessert, etc.	6	
TECHNIQUES AND PLANNING		
Correct techniques used	8	
Plans were well made and followed (time schedule, market list, etc.)	8	
Efficient work habits	8	
Cleanup well-organized and carried out	8	
TOTAL	100	

UNIT VIII: MEALS FOR FAMILY AND SPECIAL OCCASIONS

JOB SHEET #7: ROLE PLAYING

The Diners

Directions: Two to six students are chosen to role play a dinner. Time should be allowed to set up the tables with dinnerware, flatware, and glassware, and allow other participants to briefly go through their skit procedure. Participants are assigned parts as host, hostess, and guests. They are each given one or more poor etiquette practices to role play during the dinner. The skit should be long enough for each participant to exhibit the poor etiquette practices she/he was given. When one group is finished, another group of students might take a turn to role play additional poor etiquette practices depending on time and number of class members.

Those students not participating in the role playing are to list all of the poor practices they observe while reviewing the skit and problems caused by the practices. Following the role playing, the skit should be discussed; give verbal recognition, bonus points, a small prize, etc. to the students who catch the most poor etiquette practices. Following the discussion, the group should repeat the skit using the correct procedures and omitting any poor practices.

Role Playing Assignments (Copy and cut apart.)

For the guests

Slumping at the table

Elbows spread out while eating

Serve self first, before passing

Keep talking about a table accident you caused.

Blow nose at the table

Do not contribute to the conversation

Leave table before the meal is finished without asking to be excused

Ask for seconds

Forget to unfold napkin

Place knife back on table after using

Place spoon back on table after using

Leave spoon in cup or glass after stirring

Pass food (such as cream pitcher) to another person - you hold handle

Play with the tableware

Rearrange tableware

Do not place knife and fork in center of plate when finished

Stack your dishes at end of meal

Leave napkin somewhere besides at the left of plate when finished.

Refold napkin neatly when finished eating.

Use spoon to eat main dish items

Hold fork wrong (like a shovel)

Chew with mouth open

Lower your head to meet your fork

Blow your food

Mix foods on plate

Use a toothpick or your finger to remove food stuck in teeth

Play with your hair while at the table

Use personal flatware to serve yourself from a serving dish

Place gum on the side of your plate

Monopolize the conversation

Sit down before everyone is at the table

For the host or hostess

Do not facilitate the conversation

Do not tell people where to sit

Sit in wrong place

Do not bring the meal to a close

680

UNIT VIII: MEALS FOR FAMILY AND SPECIAL OCCASIONS

TEST

Meal Planning

1. a. In the spaces below list the foods or courses (at least 4) for each meal pattern listed.

   b. In the spaces list at least one descriptive characteristic of the meal pattern.

Family Breakfast (Medium)	Family Luncheon (Medium)	Family Dinner (Medium)	Formal Dinner	Buffet	Reception
a	a	a	a	a	a
________	________	________	________	________	________
________	________	________	________	________	________
________	________	________	________	________	________
________	________	________	________	________	________
________	________	________	________	________	________
________	________	________	________	________	________
b	b	b	b	b	b
________	________	________	________	________	________
________	________	________	________	________	________
________	________	________	________	________	________
________	________	________	________	________	________
________	________	________	________	________	________
________	________	________	________	________	________

Serving Skills

2. Directions: Match the terms on the right to the correct definition on the left by placing the number of the term in the blank beside the definition.

____ a. An individual place setting including dinnerware, flatware, and linens needed by one person

____ b. Surface cracking of the glaze applied to dinnerware

____ c. Dinnerware, glassware, flatware, table covering and accessories

____ d. Glasses without stems

____ e. Stemware piece large enough for serving water

____ f. Finest quality clear glassware

____ g. Glass made by blowing air into a mold

____ h. Platinum or gold edging is put on rim of glass

____ i. Opaque, white glassware

____ j. Word meaning "not allowing light to pass through"

____ k. Word meaning "not dense"

____ l. Fine china, translucent

____ m. Dinnerware which is more casual than china and more durable than earthenware

____ n. A plastic used for dinnerware

____ o. Forks, knives, spoons and serving pieces

____ p. 92.5 parts silver, 7.5 parts alloy

____ q. Tableware for one person

____ r. Tablecloth, placemats, napkins

____ s. Teapots, bowls, pitchers

1. Tableware
2. Stemware
3. Tumblers
4. Goblets
5. Sherbets
6. Crystal
7. Blown glass
8. Pressed glass
9. Tinted glass
10. Cased glass
11. Etched glass
12. Cut glass
13. Bonded glass
14. Frosted glass
15. Embossed glass
16. Engraved glass
17. Milk glass
18. Irridescent glass
19. Transparent
20. Translucent
21. Opaque
22. Porous
23. Bone china
24. Stoneware
25. Porcelain
26. Earthenware
27. Ironstone
28. Pottery
29. Glass ceramic
30. Melamine
31. Pewter
32. Flatware
33. Silver plate
34. Stainless steel
35. Sterling silver
36. Open stock
37. Place setting
38. Linens
39. Hollowware
40. Tarnish
41. Crazing
42. Glaze
43. Cover

3. List 10 considerations or things to look for when selecting dinnerware.

a.

b.

c.

d.

e.

f.

g.

h.

i.

j.

4. List 5 care procedures for dinnerware

a.

b.

c.

d.

e.

5. List 5 considerations or things to look for when selecting flatware.

a.

b.

c.

d.

e.

6. List 5 care procedures to follow for flatware.

   a.

   b.

   c.

   d.

   e.

7. List 5 considerations or factors to consider when selecting glassware.

   a.

   b.

   c.

   d.

   e.

8. List 5 care procedures to follow for glassware.

   a.

   b.

   c.

   d.

   e.

9. List 5 factors to consider when selecting a centerpiece for your table.

   a.

   b.

   c.

   d.

   e.

10. List 5 factors to consider when selecting table linens.

    a.

    b.

    c.

    d.

    e.

11. List and briefly describe the three serving methods for informal sitdown meals.

    a.

    b.

    c.

12. List and briefly describe the three serving methods for formal sitdown meals.

    a.

    b.

    c.

13. Sketch (in simple form) a buffet serving arrangement showing placement of serving dishes, utensils, plates, flatware, napkins, and beverages and direction of a single line.

14. Sketch a reception serving arrangement. Include all items necessary for a reception showing direction of one or two serving lines.

15. List five reasons why social skills are important in dining.

a.

b.

c.

d.

e.

16. List fifteen appropriate social skills for dining.

a.

b.

c.

d.

e.

f.

g.

h.

i.

j.

k.

l.

m.

n.

o.

Dining Out

17. Give at least three descriptive characteristics of each of the following types of eating places.

   a. Fast food chains

      1)

      2)

      3)

   b. Cafeterias

      1)

      2)

      3)

   c. Delicatessen

      1)

      2)

      3)

   d. Family restaurant

      1)

      2)

      3)

   e. Smorgasbord

      1)

      2)

      3)

   f. Luxury restaurant

      1)

      2)

      3)

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18. Identify the correct guidelines to follow in dining out by placing (+) in the space beside the correct statement. Place a (o) in the space beside incorrect statements.

____ a. All moderately priced to expensive restaurants require reservations.

____ b. Make a reservation in the name of the host/hostess giving the number of people in the group.

____ c. It is improper for women to take coats with them to the table.

____ d. Makeup should not be "touched-up" at the table.

____ e. In most restaurants, it is proper to place the napkin on the lap or tuck it in at the neckline.

____ f. Although one should ask to be excused from the table when dining in a home, this is not necessary in a restaurant.

____ g. It is usually necessary to speak loudly to get the waiter's/waitress' attention.

____ h. It is best to try to locate a table as quickly as possible when dining out.

____ i. If you drop flatware in a restaurant, it is usually best not to pick it up.

____ j. Wrappers from sugar packets can be left on the tablecloth.

____ k. One should not make complaints about the meal or service.

____ l. One should not "table-hop"

____ m. The dessert is usually not ordered until you are finished eating the main course.

____ n. It is best not to show your ignorance and take up the waiter's/waitress' time by asking about terms on the menu you do not understand.

____ o. One picks up the bill at the cashier's desk.

____ p. It is rude to check the figures on the bill.

____ q. In some restaurants the bill is paid directly to the waiter/waitress.

____ r. A tip is usually 15-20% of the bill before taxes.

____ s. No tip is necessary in most fast-food restaurants.

19. Match the menu terms on the right with the correct definition on the left by putting the number of the term in the appropriate blank. All terms will not be used.

____ a. Served in cream sauce with mushrooms and green pepper or pimento.

____ b. Served with ice cream

____ c. Made or garnished with almond

____ d. Served with natural juices

____ e. A small fish

____ f. Served with milk

____ g. Speciality of the day

____ h. Boneless cut of meat or fish

____ i. Served with cooked onion

____ j. Salad with apples, celery, nuts, and mayonnaise

____ k. Flaky pastry filled with fruit

____ l. Rich cake with filling between layers

____ m. Oil and vinegar

____ n. Sauteed in butter

____ o. Beet soup

____ p. Snails

____ q. Mixture of fresh fruits

____ r. Served with spinach

____ s. Coffee and chocolate mixture

1. Vinaigrette
2. Amandine
3. Caviar
4. Du jour
5. A la king
6. A la mode
7. Au jus
8. Mocha
9. Lyonnaise
10. Waldorf
11. Meuniere
12. Escargot
13. Anchovy
14. Filet
15. Borscht
16. Chowder
17. Tart
18. Au lait
19. Strudel
20. Macedoine
21. Mousse
22. Expresso
23. Marinara
24. Florentine

UNIT VIII: MEALS FOR FAMILY AND SPECIAL OCCASIONS

TEST KEY

1.

Family Breakfast (Medium)	Family Luncheon (Medium)	Family Dinner (Medium)	Formal Dinner	Buffet	Reception
a	a	a	a	a	a
Fruit Main dish Bread Beverage	Main dish Salad &/or veg Bread Dessert (opt)	Main dish 2 veg Salad Bread	Appetizer Soup Salad Main Course Veg Dessert Beverage	Main Course Salad Veg Dessert Beverage	Punch Coffee Nuts and Meats Sm. sandwiches Cake
b	b	b	b	b	b
May be light, med. or heavy supplies ¼ daily calories	May be Light, med. or heavy Called supper if served in the evening	May be light, med. or heavy Largest meal of the day	Elegant expensive formal	Convenient easy to serve casual or formal	More formal honors a person or occasion

2. a. 43
b. 41
c. 1
d. 3
e. 4
f. 6
g. 7
h. 13
i. 17
j. 21
k. 22
l. 25
m. 24
n. 30
o. 32
p. 35
q. 37
r. 38
s. 39

3. Any 10 of the following:

   a. Consider personal taste, lifestyle, and amount of money to be spent (traditional or contemporary; formal or informal; lots of pieces or a few basic; expensive china or inexpensive plastic).
   b. Consider amount of available storage space.
   c. Buy from a reputable dealer.
   d. Check the finish on the edges, especially on the cups, to be sure there are no unglazed spots.
   e. Consider how the color and pattern will look with food.
   f. Look for dual-purpose serving pieces to use for both cooking and serving.
   g. Look for ovenproof and microwave-safe pieces, and durability to suit your needs.
   h. Pick up a cup to see if it is comfortable to hold and if the shape is deep enough to keep beverages hot.
   i. Select a color and pattern which will coordinate well with room decor and is versatile enough to mix and match with your accessories. For example, china may be more formal and traditional; stoneware more casual and contemporary.
   j. Buy open stock dinnerware if you plan to continue to make purchases over a period of time or wish replacement pieces.
   k. Starter sets are sometimes available at a special price.
   l. Dinnerware is often sold in 3-, 4-, or 5-piece place settings.
   m. Select the plate shape most suitable for your style and needs.

4. Any five of the following:

   a. Rinse as soon as dishes are removed from table.
   b. Handle with care.
   c. Wash in hot, sudsy water.
   d. Rinse in hot but not boiling water.
   e. Do not use scouring powder or steel wool, which will scratch the glaze.
   f. Towel drying may be necessary to prevent water spotting (be careful of lint, too).
   g. Follow manufacturer's instructions concerning the dishwasher.
   h. Store fine pieces with a napkin, tissue or pad between pieces.
   i. Never place in oven unless ovenproof.
   j. Avoid extremes of temperatures.
   k. Never hang cups (it weakens the handles) and do not stack more than two high.

5. Any five of the following:

   a. Consider the amount of money to be spent.
   b. Consider personal taste, lifestyle and style of dinnerware and room decor to decide from decorated traditional style, simple traditional; decorated contemporary; simple contemporary.
   c. Determine which Basic Place Setting pieces, additional place pieces, and serving pieces you want .
   d. Purchase by open stock if you plan to add to the set over a period of time.
   e. Find out how long pattern will be available.
   f. Starter sets are sometimes sold at lower prices.
   g. If sold by place settings, find out whether 3, 4, or 5 basic pieces are included.

h. Buy from a reputable dealer.
i. Inspect the finish, especially on the edges of the fork tines, knife blades and spoon bowls.
j. Choose additional place and serving pieces which have more than one use.

6. Any five of the following:

   a. Rinse soon after use, if not planning to wash immediately.
   b. Use mild soap or detergent in warm water.
   c. Do not scour.
   d. Loosen any dried food with a soft brush.
   e. Follow manufacturer's directions on use of dishwasher.
   f. Keep sterling in use.
   g. Store sterling and silver plate in tarnish-proof bags, chests or drawers.
   h. Use a good silver polish when needed and use according to directions.
   i. Store stainless steel in divided racks.
   j. Pieces may need to be towel-dried after washing to prevent water spots.

7. Any five of the following:

   a. Consider personal taste, lifestyle and amount of money you have to spend.
   b. Be sure glass is comfortable to hold and drink from.
   c. Be sure glass is well balanced and will not tip easily.
   d. Choose pieces that can serve more than one purpose.
   e. Find out how long replacement pieces will be available.
   f. Keep storage space in mind.
   g. Joints should be invisible, rims smooth and no visible air bubbles or flaws.
   h. If glass is cut, check to see that the edges are sharp.
   i. Select type to go with table coverings.
      ex. a lace table cloth, fine china, sterling silver , and fine lead crystal all go together. However, fine lead crystal may look out of place with plastic place mats, stoneware and stainless steel
   j. Select open stock in order to replace pieces.
   k. Most common sizes of stemware used included the goblet, wine glass, and sherbet.

8. Any five of the following:

   a. Wash glassware before dinnerware.
   b. Glasses should not be stacked unless especially designed for that.
   c. Handle with care; use a mat in the sink.
   d. Hold stemware at base of bowl and not stem.
   e. Do not plunge cold glassware into hot water (it may crack or break).
   f. Rinse soon after use.
   g. Never pry glasses which are stuck together. Fill one with cool water (not cold) and place other in warm (not hot) water.
   h. Follow manufacturer's directions concerning use of dishwasher; glassware with metallic trim should usually be washed by hand.

9. Any five of the following:

   a. Should add color and beauty.
   b. Need not be expensive.
   c. Should fit formality of table and meal.
      1) Informal fresh fruit, raw vegetable arrangement, salad, molded gelatin, special cake, potted plants, leaves, pine cones and evergreens, bright colored bulky candles, flowers such as daisies, mums, etc.
      2) Formal example - pale-colored tapers (candles), silver, gold, crystal accessories, flowers such as carnations, roses, etc.
   d. Should harmonize with rooms, dishes and food.
   e. Should be low enough so those at the table can see over it.
   f. Usually placed in center but may be placed "off-center" at one end if there are no covers on that side.
   g. Should suit the mood you are trying to create.
   h. Should be in proportion to the table.
   i. Candles, when used, should be lit and burn above or below eye level.
   j. Candles are best used in the evening or night time hours or on dark days.

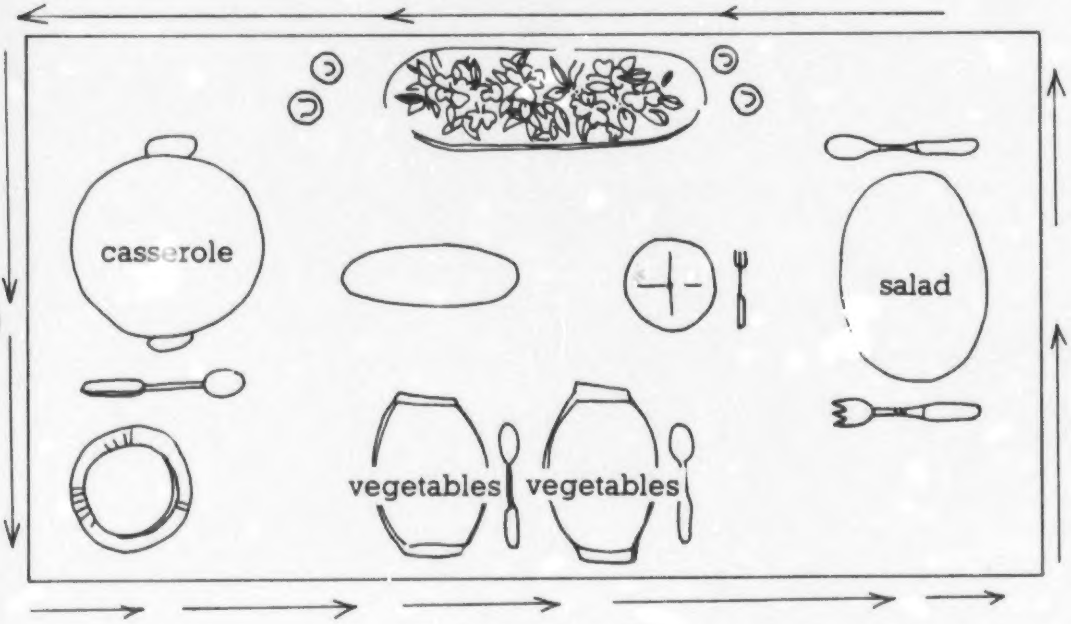
10. Any five of the following:

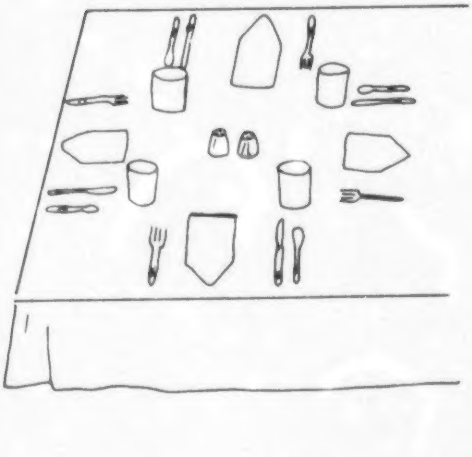
   a. Consider color and pattern of dinnerware (a definite pattern will look best with a plain background).
   b. Consider the formality - the rougher the texture and brighter the color the less formal, the smoother the texture and paler the color the more formal.
   c. Consider the amount of storage space.
   d. Consider care requirements and ease of laundering.
   e. Consider durability.
   f. Select correct sizes for your purpose.
   g. Choose versatile pieces which might be mixed and matched.

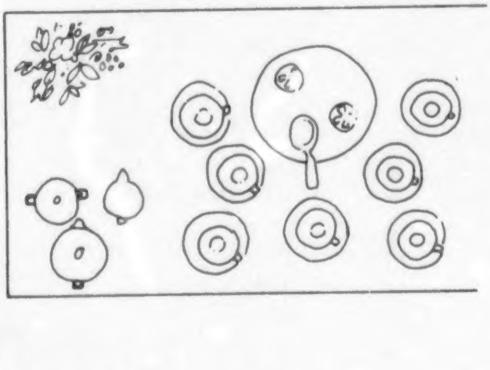
11. a. Family (country) - Food is brought to the table in serving dishes; Serving dishes are passed around the table so that individuals help themselves. People can eat as much as desired (allows for overeating). Many serving dishes are necessary.
   b. Blue plate service - Food is portioned out into individual plates in the kitchen, brought to the table, and placed before each person; foods such as bread, butter, relishes may be passed at the table so people can help themselves; this method allows for portion control (good for weight watchers and the budget) and requires few serving dishes.
   c. English Service - Food is brought to the table in serving dishes and placed in front of the host. The host then puts food on plates and passes one to each person. The hostess may also serve some of the food. This method works best with a small number of people and when serving dishes are too hot to pass easily.

12. a. English Service - same as the English Service used for informal service except that after the plate is filled a waiter or waitress carries the plate to the individual
    b. Russian - a waiter or waitress takes a platter of food to each person and serves the person a portion - sometimes individuals help themselves.
    c. Continental (blue-plate) - a waiter or waitress serves each person a plate of food filled in the kitchen.
    d. Compromise - some courses are served by one method and others are served by another method. For example - the appetizer, soup and dessert might be dished out in the kitchen and served continental style while the main course is served English style

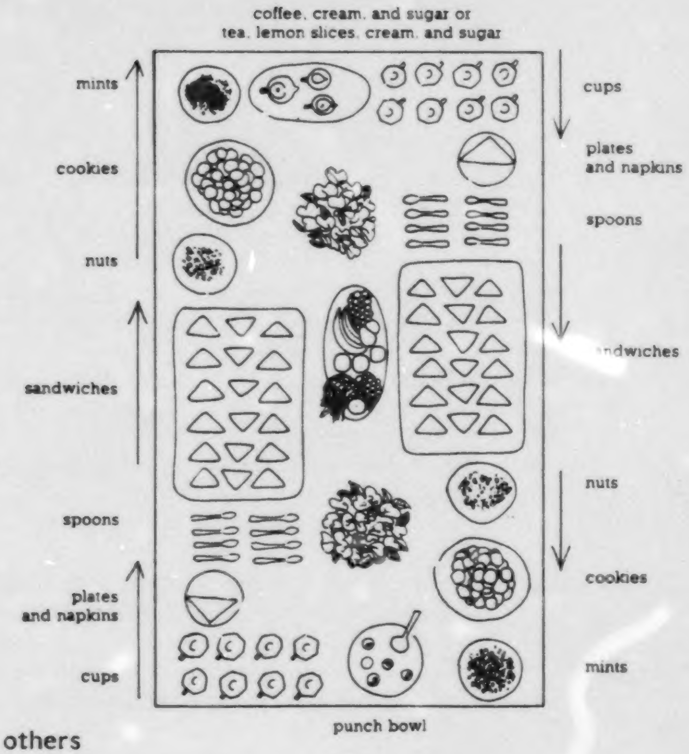
13.







14. Sketch


coffee, cream, and sugar or
tea, lemon slices, cream, and sugar
mints
cookies
nuts
sandwiches
spoons
plates
and napkins
cups
cups
plates
and napkins
spoons
ndwiches
nuts
cookies
mints
punch bowl

15. a. Shows consideration of others
    b. Gives one confidence
    c. Leaves good impression
    d. Creates a pleasant atmosphere
    e. Makes dining more convenient

16. Any fifteen of the following

a. Be neat and clean when you come to the table. Always wash your hands before a meal.
b. Come to the table when the meal is ready. Do not make others wait.
c. Let older people precede you. Do not rush to the table.
d. Wait for eveyone to be gathered in the eating area before you sit down.
e. Sit down from the left side of your chair. People can collide when they sit down from different sides of their chairs.
f. If you are sitting to the left of a young child or an elderly person, help that person to be seated. Gently push in the chair as he or she sits down.
g. If grace is said at the table, sit or stand quietly through it.
h. Do not start to eat until everyone has been served.
i. Sit up straight. Do not slump on the table, lean against it with your arm, or rest your elbow on the table.
j. Keep your elbows near your sides while you eat. Do not spread them out like wings.
k. Keep the needs of others in mind. See that food is passed to them. Do not serve yourself first, unless the host asks you to do so.
l. Apologize in the event of an accident, and then try to forget it. Talking about it only keeps it fresh in everyone's mind.

m. Do not blow your nose at the table unless you absolutely must. Instead, excuse yourself from the table. Use a handkerchief as unobtrusively as possible.
n. Listen to others when they are talking, but do not be afraid to add to the conversation yourself.
o. Do not argue. Introduce pleasant topics. If you are calm while you eat, you will digest your food better.
p. Remain at the table until the meal is finished. If special circumstances do not allow this, always ask to be excused before leaving.
q. Do not smoke at the table until all food has been removed and then only with permission; be sure to use an ashtray.
r. Remove any gum before coming to the table.
s. Take small bites and eat slowly.
t. Chew with your mouth closed. Do not talk with food in your mouth.
u. Cut off each bite of food just before you eat it.
v. Lift the food to your mouth when you eat. Do not lower your head to the food.
w. Eat all the food taken on a fork or spoon at one time. Never take any of it out of your mouth again, except pits or bones.
x. Have your mouth empty when you drink water or a beverage.
y. Sip beverages. Do not gulp them.
z. Wait for a hot food to cool before eating it. Do not blow on it.
aa. Dip a soup spoon into the soup with the bowl facing away from you. Do not fill the spoon completely. You may drink a clear, thin soup, such as bouillon or consomme, from the cup. Do not sip a creamed soup from a cup.
bb. Break, rather than cut, bread or rolls before buttering them.
cc. When there is a bread-and-butter plate, use it also for relishes, celery, olives, pickles, and for jam or jelly for your bread. Otherwise, place these foods on your plate.
dd. Do not touch foods with your hands, except for finger foods. These include olives, celery, carrot sticks, potato chips, breads, rolls, most sandwiches, and corn on the cob. Do not pick up chicken with your hands unless you are at an informal picnic or supper.
ee. Keep each food separate on your plate as you eat. Otherwise your plate looks unappetizing to other people.
ff. Remove fruit pits from your mouth with a spoon.
gg. Remove a fish bone from your mouth with your fingers, and put it on the side of the plate.
hh. If food particles get between your teeth, wait until you leave the table to remove the particles. Use a toothpick or dental floss in private.
ii. Take a very small portion of unfamiliar foods. It is considered bad manners to refuse a food unless you are allergic to it.
jj. Do not ask for seconds unless the food is on the table or unless it is offered.
kk. You may refuse second offerings if you wish.
ll. Do not put your hands on your hair or face while eating.
mm. Season foods with salt, pepper, and condiments if you desire but only after tasting first and then do not overdo.

nn. Unfold the napkin and put it in your lap.
oo. Use the napkin to wipe or blot your mouth lightly.
pp. When you are not using your knife, place it across the top of the plate.
qq. Cut salads with a fork. Use a knife only when necessary.
rr. When you have finished using a spoon, leave it on a saucer, sauce dish, or soup plate.
ss. Serve yourself from a bowl or plate with the spoon or fork provided. Do not use your own flatware.
tt. Pass food that is in a serving dish with a handle so that the handle is toward the person to whom the dish is passed.
uu. Never play with the tableware or rearrange it .
vv. When you are finished eating, place your knife and fork in the center of your plate.
ww. At the end of the meal, leave your dishes in place on your cover. Do not push them away from you, and do not stack them.
xx. Before leaving the table, place your napkin to the left of your plate. It should not be folded, but it should be neat.
yy. When unsure what to do, watch the host/hostess and follow his or her example.
zz. Generally, use a spoon to eat foods served in a bowl; use a fork to eat foods served on a plate.

17. Any 3 of the following:

a. 1) Quick, sanitary meals
  2) Consistent quality
  3) Relatively inexpensive
  4) Posted menu
  5) Limited menu
  6) May or may not have tables
b. 1) Quick
  2) Customer walks past food
  3) Prices are posted
  4) Cashier at end of line
c. 1) Purchase prepared foods in quantities desired
  2) Some have eating area
  3) Menus posted above counter
d. 1) Sit-down meals
  2) Moderate price
  3) More formal than fast food restaurants
e. 1) Diners pick up plates and serve selves
  2) Moderate price
  3) Sit-down eating
f. 1) Expensive
  2) Have maitre d'hote, host or hostess
  3) May have dress code
  4) May serve alcoholic beverages
  5) May have musical entertainment

18. a. o
  b. +